```
=> d his ful

     (FILE 'HOME' ENTERED AT 09:57:04 ON 04 OCT 2006)

     FILE 'HCAPLUS' ENTERED AT 09:57:27 ON 04 OCT 2006
                E STORER R/AU
L1           229 SEA ABB=ON  PLU=ON  STORER R?/AU
                E MOUSSA A/AU
L2           278 SEA ABB=ON  PLU=ON  MOUSSA A?/AU
                E CHAUDHURI N/AU
L3           413 SEA ABB=ON  PLU=ON  CHAUDHURI N?/AU
                E WALIGORA G/AU
                E WALIGORA F/AU
L4             3 SEA ABB=ON  PLU=ON  WALIGORA F?/AU
L5             1 SEA ABB=ON  PLU=ON  L1 AND L2 AND L3 AND L4
                D SCAN
                E US20050020825/PN
L6             1 SEA ABB=ON  PLU=ON  US20050020825/PN
L7             1 SEA ABB=ON  PLU=ON  L5 AND L6
                D ALL
                SEL RN

     FILE 'REGISTRY' ENTERED AT 10:02:05 ON 04 OCT 2006
L8            25 SEA ABB=ON  PLU=ON  (10416-59-8/BI OR 13734-41-3/BI OR
                15397-15-6/BI OR 172722-75-7/BI OR 18162-48-6/BI OR
                20724-73-6/BI OR 23643-36-9/BI OR 31448-54-1/BI OR
                4637-24-5/BI OR 492-30-8/BI OR 57-48-7/BI OR 58479-61-1
                /BI OR 640725-69-5/BI OR 640725-70-8/BI OR 640725-71-9/
                BI OR 642075-42-1/BI OR 642075-43-2/BI OR 642075-44-3/B
                I OR 66-22-8/BI OR 701295-32-1/BI OR 71-30-7/BI OR
                72-18-4/BI OR 7392-74-7/BI OR 75-77-4/BI OR 999-97-3/BI
                )
                D SCAN
                D L8 1-25 RN STR
L9             1 SEA ABB=ON  PLU=ON  492-30-8/RN
                D SCAN
                D CN
L10            1 SEA ABB=ON  PLU=ON  57-48-7/RN
                D SCAN
L11            1 SEA ABB=ON  PLU=ON  15397-15-6/RN
                D SCAN
L12             STR
L13             STR L12

     FILE 'CASREACT' ENTERED AT 10:23:55 ON 04 OCT 2006
L14             STR L12
L15            0 SEA SSS SAM L14 (     0 REACTIONS)
L16            0 SEA SSS SAM L13 (     0 REACTIONS)
L17            1 SEA SSS FUL L13 (     2 REACTIONS)
                D SCAN
                SAV L17 KRI408/A
                D SAV
                D QUE STAT
L18             STR L13
L19            0 SEA SSS SAM L18 (     0 REACTIONS)
L20            3 SEA SSS FUL L18 (    11 REACTIONS)
                D SCAN
                SAV L20 KRI408A/A
                D QUE STAT
                D 1-3

     FILE 'REGISTRY' ENTERED AT 10:34:21 ON 04 OCT 2006
                D SCAN L9

     FILE 'CASREACT' ENTERED AT 10:37:13 ON 04 OCT 2006
L21             STR
```

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L22           0 SEA SSS SAM L21 (      0 REACTIONS)
L23           1 SEA SSS FUL L21 (      2 REACTIONS)
                D SCAN
                SAV L23 KRI408B/A

     FILE 'REGISTRY' ENTERED AT 12:23:59 ON 04 OCT 2006
                D SCAN L11

     FILE 'CASREACT' ENTERED AT 12:24:00 ON 04 OCT 2006

     FILE 'REGISTRY' ENTERED AT 12:25:23 ON 04 OCT 2006
                D SCAN L8
                D L8 1-25 RN STR

     FILE 'CASREACT' ENTERED AT 13:00:19 ON 04 OCT 2006
L24             STR
L25           0 SEA SSS SAM L24 (      0 REACTIONS)
L26           0 SEA SSS FUL L24 (      0 REACTIONS)
L27             STR L24
L28           0 SEA SSS SAM L27 (      0 REACTIONS)
                D COST
L29           0 SEA SSS FUL L27 (      0 REACTIONS)
                D COST
                D QUE STAT L17
                D QUE STAT L20
                D QUE STAT L23
L30           3 SEA ABB=ON  PLU=ON  L17 OR L20 OR L23 OR L26 OR L29
                D SCAN
                D QUE STAT

     FILE 'REGISTRY' ENTERED AT 13:29:28 ON 04 OCT 2006
                E HNATE/MF
L31           2 SEA ABB=ON  PLU=ON  HNATE/MF
                D SCAN
                E I2SM/MF
L32           2 SEA ABB=ON  PLU=ON  I2SM/MF
                D SCAN
                D L31 1-2 RN
                D L31 1-2 RN STR
L33           1 SEA ABB=ON  PLU=ON  65312-92-7/RN
                D SCAN
                D L32 1-2 RN STR
L34           1 SEA ABB=ON  PLU=ON  32248-43-4/RN
L35           1 SEA ABB=ON  PLU=ON  223258-89-7/RN
                E H2/MF
L36          19 SEA ABB=ON  PLU=ON  H2/MF
                D SCAN
                D L36 1-19 RN STR
L37           1 SEA ABB=ON  PLU=ON  1333-74-0/RN
                D SCAN
                E ALC12H28LIO3/MF
                E C12H28ALLIO3/MF
                E C12H28ALO3.LI/MF
L38           6 SEA ABB=ON  PLU=ON  C12H28ALO3.LI/MF
                D SCAN
                D L38 RN STR
                D L38 1-6 RN STR
L39           1 SEA ABB=ON  PLU=ON  17326-58-8/RN
                E CARBON DIOXIDE/CN
L40           1 SEA ABB=ON  PLU=ON  CARBON DIOXIDE/CN
                D RN
L41           1 SEA ABB=ON  PLU=ON  124-38-9/RN
                E OXALIC ACID/CN
L42           1 SEA ABB=ON  PLU=ON  OXALIC ACID/CN
                D RN
L43           1 SEA ABB=ON  PLU=ON  144-62-7/RN
                E 7392-74-7/RN
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L44             1 SEA ABB=ON  PLU=ON  7392-74-7/RN
                  D SCAN
                  E 172722-75-7/RN
L45             1 SEA ABB=ON  PLU=ON  172722-75-7/RN
                  D SCAN

     FILE 'HCAPLUS' ENTERED AT 13:51:42 ON 04 OCT 2006
                  D SCAN L7
L46         63046 SEA ABB=ON  PLU=ON  L9 OR FRUCTOSE
L47          1664 SEA ABB=ON  PLU=ON  L10/P
L48             6 SEA ABB=ON  PLU=ON  L11/P
L49             7 SEA ABB=ON  PLU=ON  L44/P
L50             2 SEA ABB=ON  PLU=ON  L45/P
L51          1674 SEA ABB=ON  PLU=ON  (L47 OR L48 OR L49 OR L50)
L52          1580 SEA ABB=ON  PLU=ON  L51 AND L46
L53            11 SEA ABB=ON  PLU=ON  L9/RCT
L54            26 SEA ABB=ON  PLU=ON  (L9 OR FRUCTOSE/RCT)
                  D SCAN
L55             4 SEA ABB=ON  PLU=ON  L53 AND L51
                  D SCAN
L56           151 SEA ABB=ON  PLU=ON  L33
L57          1242 SEA ABB=ON  PLU=ON  L34
L58             1 SEA ABB=ON  PLU=ON  L35
L59        317085 SEA ABB=ON  PLU=ON  L37
L60             9 SEA ABB=ON  PLU=ON  L39
L61        318481 SEA ABB=ON  PLU=ON  (L56 OR L57 OR L58 OR L59 OR L60)
L62             0 SEA ABB=ON  PLU=ON  L61 AND L55
L63            11 SEA ABB=ON  PLU=ON  L61 AND L51
                  D SCAN
                  D QUE L54
L64             5 SEA ABB=ON  PLU=ON  L54 AND L51
                  D SCAN
L65            16 SEA ABB=ON  PLU=ON  L55 OR (L63 OR L64)
L66            11 SEA ABB=ON  PLU=ON  L65 AND L61
L67         11600 SEA ABB=ON  PLU=ON  L61(L)REDUC?
L68             0 SEA ABB=ON  PLU=ON  L67 AND L65 AND L67
                  D QUE
                  D SCAN L66
                  D QUE L66
                  D SCAN L66 TI
L69               QUE ABB=ON  PLU=ON  PRODUC? OR PROD# OR GENERAT? OR
                  MANUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR
                  FORMAT? OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR
                  SYNTHESI? OR PREPAR? OR PREP#
L70            16 SEA ABB=ON  PLU=ON  (L63 OR L64 OR L65 OR L66)
L71            16 SEA ABB=ON  PLU=ON  L70 AND L69
L72            16 SEA ABB=ON  PLU=ON  L66 OR L71
L73            26 SEA ABB=ON  PLU=ON  L9
L74         32087 SEA ABB=ON  PLU=ON  L10
L75            16 SEA ABB=ON  PLU=ON  L11
L76             8 SEA ABB=ON  PLU=ON  L44
L77             3 SEA ABB=ON  PLU=ON  L45
L78         32107 SEA ABB=ON  PLU=ON  (L74 OR L75 OR L76 OR L77)
L79         19354 SEA ABB=ON  PLU=ON  L78 AND L69
L80          7480 SEA ABB=ON  PLU=ON  L78(L)L69
L81             5 SEA ABB=ON  PLU=ON  L80 AND L73
                  D SCAN
L82            17 SEA ABB=ON  PLU=ON  L81 OR L72


=> => d que stat 130
L13               STR
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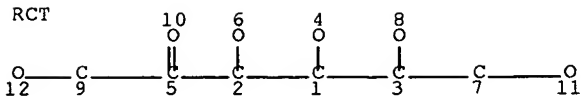
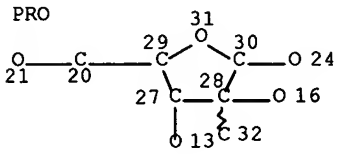


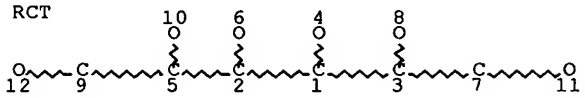
Page 1-A



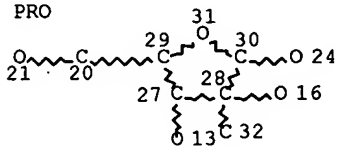
Page 2-A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L17 1 SEA FILE=CASREACT SSS FUL L13 (2 REACTIONS)
L18 STR



Page 1-A

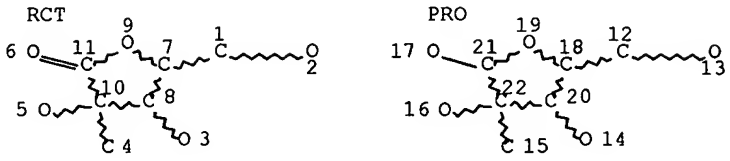


Page 2-A
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 4
CONNECT IS E1 RC AT 6
CONNECT IS E1 RC AT 8
CONNECT IS E1 RC AT 10
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L20 3 SEA FILE=CASREACT SSS FUL L18 (11 REACTIONS)
L21 STR



NODE ATTRIBUTES:
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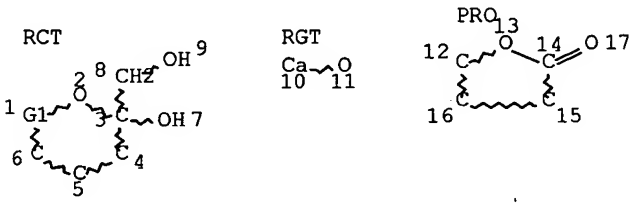
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L23 1 SEA FILE=CASREACT SSS FUL L21 (2 REACTIONS)
L24 STR



REP G1=(0-5) C
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE
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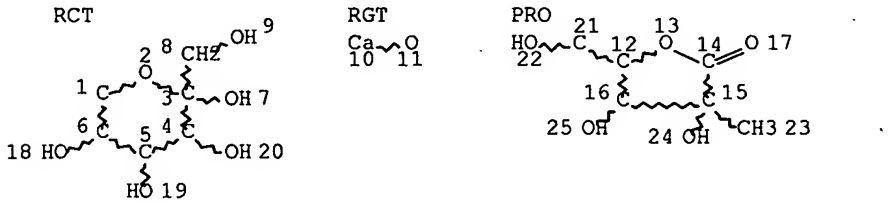
L27 STR



NODE ATTRIBUTES:
CONNECT IS E1 RC AT 17
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE
L29 0 SEA FILE=CASREACT SSS FUL L27 (0 REACTIONS)
L30 3 SEA FILE=CASREACT ABB=ON PLU=ON L17 OR L20 OR L23 OR L26 OR L29

=> d l30 1-3 iall hit

L30 ANSWER 1 OF 3 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 143:306461 CASREACT Full-text
TITLE: Kiliani reactions on ketoses: branched carbohydrate building blocks from D-tagatose and D-psicose
AUTHOR(S): Soengas, Raquel; Izumori, Ken; Simone, Michela Iezzi; Watkin, David J.; Skytte, Ulla P.; Soetaert, Wim; Fleet, George W. J.
CORPORATE SOURCE: Department of Chemistry, Chemistry Research Laboratory, University of Oxford, Oxford, OX1 3TA, UK
SOURCE: Tetrahedron Letters (2005), 46(34), 5755-5759
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 33-2 (Carbohydrates)
ABSTRACT:
D-Tagatose and D-psicose on treatment with sodium cyanide gave mixts. of branched sugar lactones; extraction of the crude products by acetone in the presence of acid permits direct access to branched carbohydrate diacetonides, likely to be of value as new chirons. In both cases, the major lactone products-diacetonides with a 2,3-cis-diol relationship-can be crystallized in around 40-50% yield from the keto-hexose. A practical procedure for the conversion of 30 g of D-tagatose to give 24 g of 2,3:5,6-di-O-isopropylidene-2-C-hydroxymethyl-D-talono-1,4-lactone is reported.

SUPPL. TERM: lactonization Kiliani ketose synthon tagatose psicose hydroxymethyltalonolactone prepn; Kiliani ketose synthon tagatose psicose lactone chiron hydroxymethyltalonolactone prepn
INDEX TERM: Synthons
(Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)
INDEX TERM: Lactones
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)
INDEX TERM: Lactonization
(Kiliani; Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)
INDEX TERM: Monosaccharides
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(ketoses; Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)
INDEX TERM: 87-81-0, D-Tagatose 551-68-8, D-Psicose

ROLE: RCT (Reactant); RACT (Reactant or reagent)
(Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)

INDEX TERM: 864846-22-0P 864846-23-1P 864846-24-2P
871706-99-9P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)

INDEX TERM: 851984-30-0P 864846-17-3P 864846-18-4P
864846-19-5P 864846-20-8P 864846-21-9P
864846-25-3P
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(Kiliani lactonization reaction on ketoses and branched carbohydrate building blocks from D-tagatose and D-psicose)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):

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(20) Simone, M; Tetrahedron Lett, 10.1016/j.tetlet.2005.06.029 2005, V46 CAPLUS
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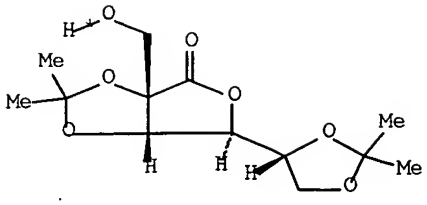
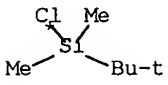
(24) Woods, R; Can J Chem 1954, V32, P404 CAPLUS

RX(1) OF 18 ...A + B ===> C



A



B

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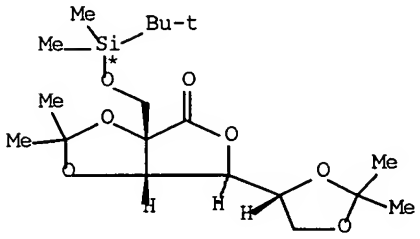
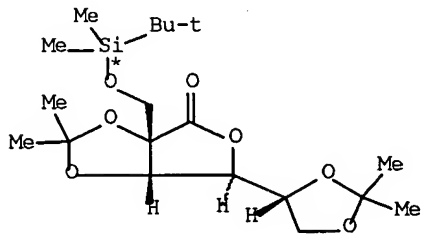


C

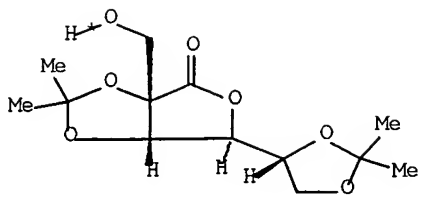
RX(1) RCT A 864846-17-3, B 18162-48-6
RGT D 288-32-4 1H-Imidazole
PRO C 864846-22-0
SOL 68-12-2 DMF
CON 4 hours, -20 deg C
NTE additional reactant isomer also present

RX(2) OF 18 C ===> A...



C

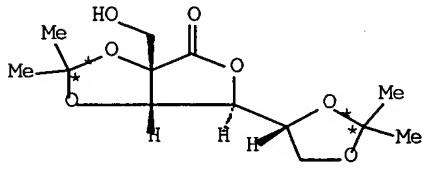
(2) →



A

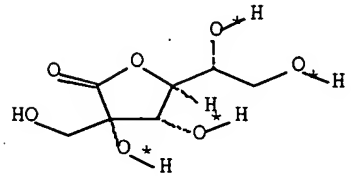
RX(2) RCT C 864846-22-0
RGT F 429-41-4 Bu4N.F
PRO A 864846-17-3
SOL 109-99-9 THF

RX(3) OF 18 ...A ===> H



A

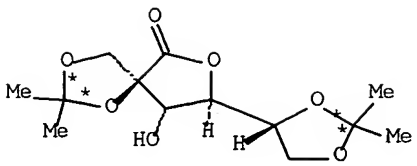
(3) ⟶



H

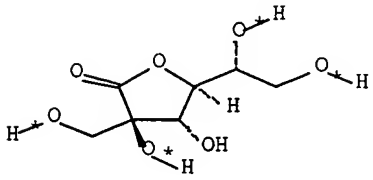
RX(3) RCT A 864846-17-3
RGT I 76-05-1 F3CCO2H
PRO H 864846-20-8
SOL 7732-18-5 Water

RX(4) OF 18 ...K ===> L



K

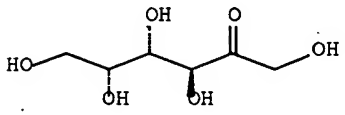
(4) →



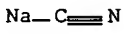
L

RX(4) RCT K 851984-30-0
RGT I 76-05-1 F3CCO2H
PRO L 864846-21-9
SOL 7732-18-5 Water

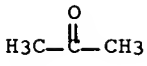
RX(5) OF 18 3 M + 2 N + 3 O ===> A + P + K...



3 M

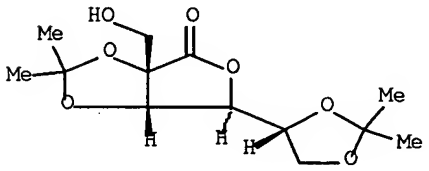


2 N

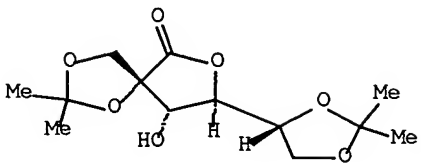


3 O

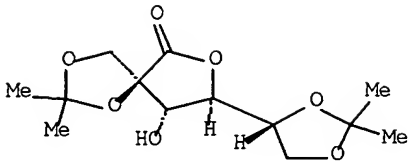
(5) →



A
YIELD 68%(71)



P
YIELD 3%



K
YIELD 68%(29)

RX(5) RCT M 87-81-0, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

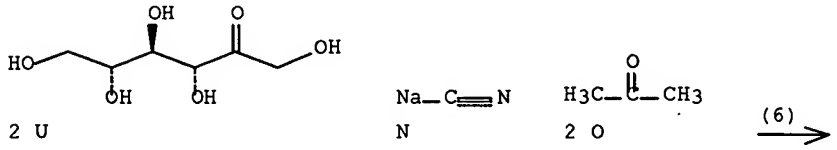
STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

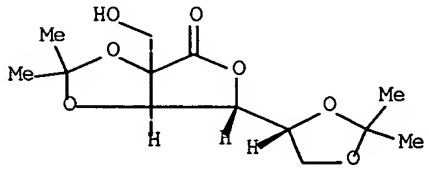
STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

PRO A 864846-17-3, P 871706-99-9, K 851984-30-0
NTE stereoselective

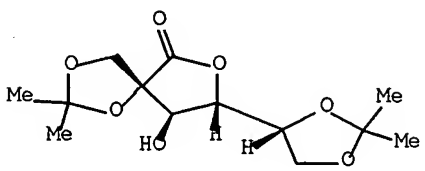
RX(6) OF 18 2 U + N + 2 O ===> V + W...



2 U N 2 O (6)



V
YIELD 56%



W
YIELD 28%

RX(6) RCT U 551-68-8, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

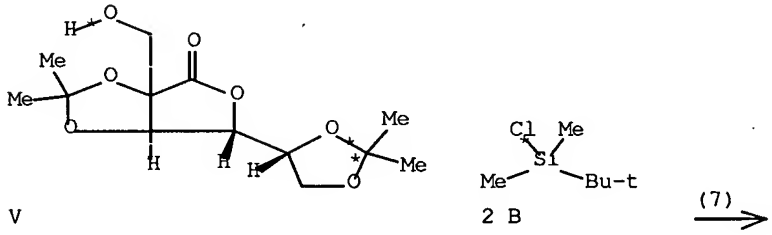
STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

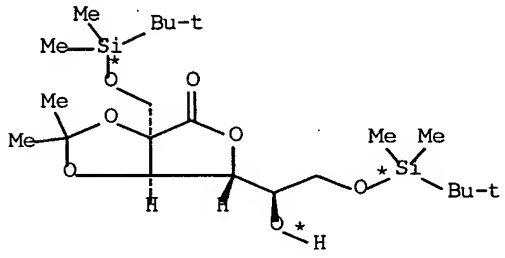
STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

PRO V 864846-18-4, W 864846-19-5
NTE stereoselective

RX(7) OF 18 ...V + 2 B ===> X





YIELD 71%

RX(7) RCT V 864846-18-4

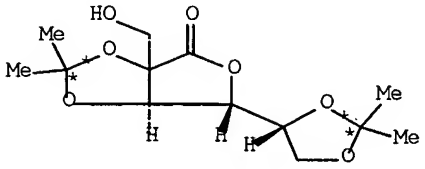
STAGE(1)
RGT Y 64-19-7 AcOH

SOL 7732-18-5 Water

STAGE(2)
RCT B 18162-48-6
RGT D 288-32-4 1H-Imidazole
SOL 68-12-2 DMF

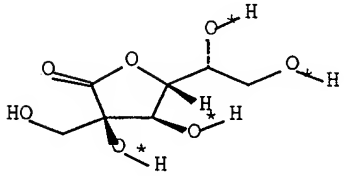
PRO X 864846-25-3

RX(8) OF 18 ...V ===> Z



V

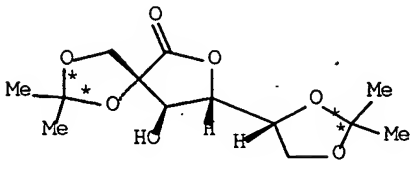
(8) →



Z

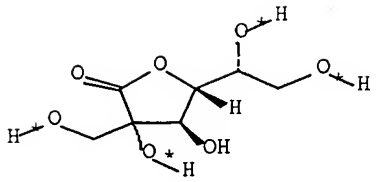
RX(8) RCT V 864846-18-4
RGT I 76-05-1 F3CCO2H
PRO Z 864846-23-1
SOL 7732-18-5 Water

RX(9) OF 18 ...W ===> AA



W

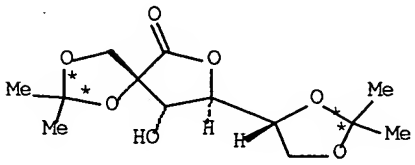
(9) →



AA

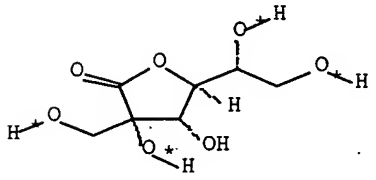
RX(9) RCT W 864846-19-5
RGT I 76-05-1 F3CCO2H
PRO AA 864846-24-2
SOL 7732-18-5 Water

RX(10) OF 18 ...P ===> H



P

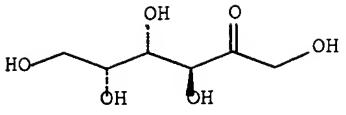
(10)



H

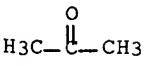
RX(10) RCT P 871706-99-9
RGT I 76-05-1 F3CCO2H
PRO H 864846-20-8
SOL 7732-18-5 Water

RX(13) OF 18 COMPOSED OF RX(5), RX(3)
RX(13) 3 M + 2 N + 3 O ===> H



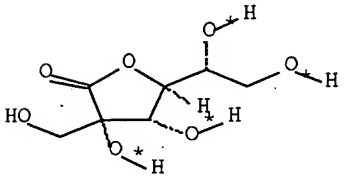
3 M

2 N



3 O

2 STEPS



H

RX(5) RCT M **87-81-0**, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

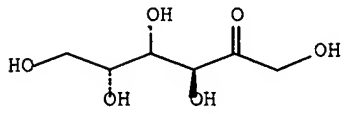
STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

PRO A 864846-17-3, P 871706-99-9, K 851984-30-0
NTE stereoselective

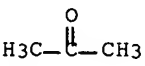
RX(3) RCT A 864846-17-3
RGT I 76-05-1 F3CCO2H
PRO H **864846-20-8**
SOL 7732-18-5 Water

RX(14) OF 18 COMPOSED OF RX(5), RX(10)
RX(14) 3 **M** + 2 N + 3 O ===> **H**



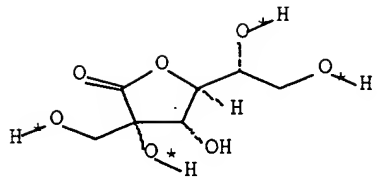
3 M

2 N



3 O

2 STEPS



H

RX(5) RCT M **87-81-0**, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

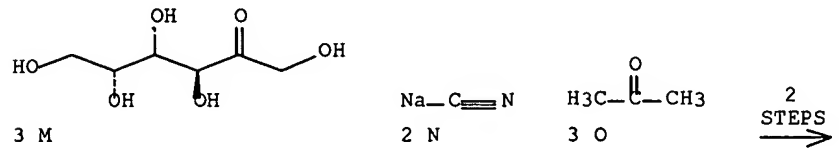
STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

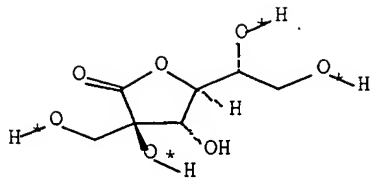
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0
NTE stereoselective

RX(10) RCT P 871706-99-9
RGT I 76-05-1 F3CCO2H
PRO H **864846-20-8**
SOL 7732-18-5 Water

RX(15) OF 18 COMPOSED OF RX(5), RX(4)
RX(15) 3 **M** + 2 N + 3 O ===> **L**



3 M 2 N 3 O



L

RX(5) RCT M **87-81-0**, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

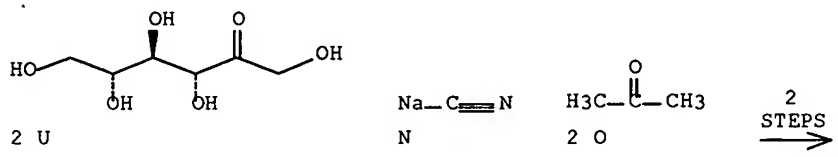
STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

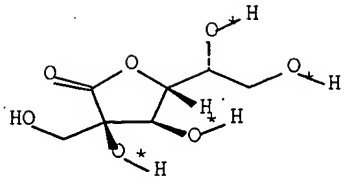
PRO A 864846-17-3, P 871706-99-9, K 851984-30-0
NTE stereoselective

RX(4) RCT K 851984-30-0
RGT I 76-05-1 F3CCO2H
PRO L **864846-21-9**
SOL 7732-18-5 Water

RX(17) OF 18 COMPOSED OF RX(6), RX(8)
RX(17) 2 **U** + N + 2 O ===> **Z**



2 U N 2 O 2 STEPS



Z

RX(6) RCT .U **551-68-8**, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

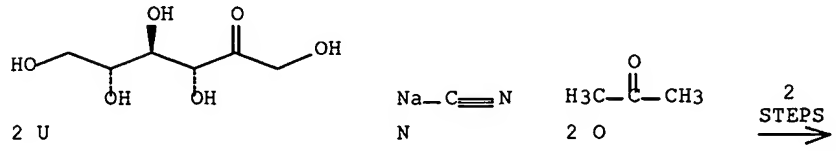
STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

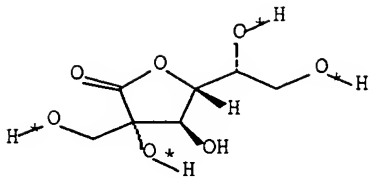
PRO V 864846-18-4, W 864846-19-5
NTE stereoselective

RX(8) RCT V 864846-18-4
RGT I 76-05-1 F3CCO2H
PRO Z **864846-23-1**
SOL 7732-18-5 Water

RX(18) OF 18 COMPOSED OF RX(6), RX(9)
RX(18) 2 **U** + N + 2 O ===> **AA**



2 U N 2 O 2 STEPS



AA

RX(6) RCT U **551-68-8**, N 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT Q 9002-23-7 Amberlite IR20
SOL 7732-18-5 Water
CON room temperature

STAGE(3)
RCT O 67-64-1
RGT R 7664-93-9 H2SO4, S 7758-98-7 CuSO4
SOL 7732-18-5 Water
CON 6 hours, room temperature

STAGE(4)
RGT T 497-19-8 Na2CO3
CON room temperature, neutralized

PRO V 864846-18-4, W 864846-19-5
NTE stereoselective

RX(9) RCT W 864846-19-5
RGT I 76-05-1 F3CCO2H
PRO AA **864846-24-2**
SOL 7732-18-5 Water

L30 ANSWER 2 OF 3 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 142:134821 CASREACT Full-text
TITLE: Kiliani on ketoses: branched carbohydrate building blocks from L-fructose and L-sorbose
AUTHOR(S): Hotchkiss, David; Soengas, Raquel; Simone, Michela Iezzi; van Ameijde, Jeroen; Hunter, Stuart; Cowley, Andrew R.; Fleet, George W. J.
CORPORATE SOURCE: Chemistry Research Laboratory, Department of Chemistry, University of Oxford, Oxford, OX1 3TA, UK
SOURCE: Tetrahedron Letters (2004), 45(51), 9461-9464
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 33-8 (Carbohydrates)
ABSTRACT:
Protected branched sugar lactones are available via Kiliani-acetonation sequences on readily available ketoses such as D-fructose and L-sorbose. In both cases, the readily crystallized diacetonides have a 2,3-cis-diol relationship in the product lactone. An efficient double inversion of the configuration at C-4 and C-5 of the product from

D-fructose gives access to the formal Kiliani product from L-psicose. Branched carbohydrate lactones are likely to be of significant value as chirons for homochiral targets with functionalized quaternary centers.

SUPPL. TERM: branched glycoside lactone synthon prepn; ketose Kiliani acetonation branched glycoside lactone prepn

INDEX TERM: Synthons
(chiral; preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: Lactones
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(glycosides; preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: Monosaccharides
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(ketoses; preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: Glycosides
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(lactones; preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: Configuration
Cyclization
(preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 827046-33-3P 827046-35-5P
ROLE: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 57-48-7, D-Fructose, reactions 87-79-6, L-Sorbose 7306-64-1 40036-82-6
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 70147-46-5P 70147-48-7P 137126-23-9P 211623-21-1P 827046-36-6P 827046-37-7P 827046-38-8P 827046-39-9P 827046-41-3P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

INDEX TERM: 64487-91-8P 827046-32-2P 827046-34-4P 827046-40-2P
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(preparation of branched glycoside lactone synthons via Kiliani-acetonation sequence on ketoses)

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD.

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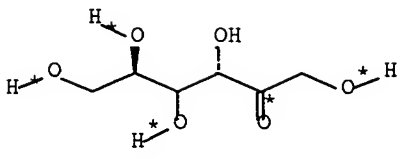
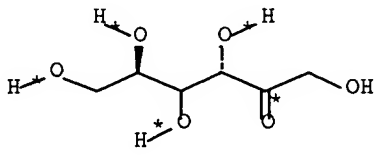
(33) Whistler, R; Methods Carbohydr Chem 1963, V2, P484
(34) Woods, R; Can J Chem 1953, V31, P471 CAPLUS
(35) Woods, R; Can J Chem 1954, V32, P404 CAPLUS

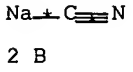
RX(1) OF 35 2 A + 2 B + 4 C ===> D + E...



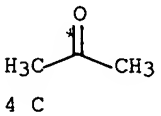
A



A

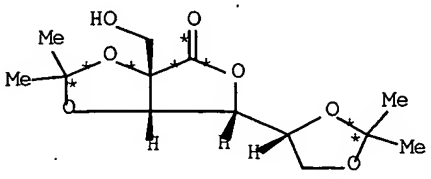


2 B

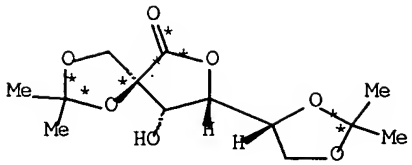


4 C

(1)



D
YIELD 51%



E
YIELD 9%

RX(1) RCT A 57-48-7, B 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, room temperature
SUBSTAGE(2) 12 hours, reflux
SUBSTAGE(3) reflux -> room temperature

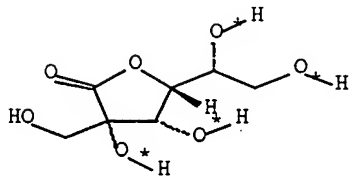
STAGE(2)
RGT F 9002-23-7 Amberlite IR20

STAGE(3)
RCT C 67-64-1
RGT G 7664-93-9 H2SO4
SOL 7732-18-5 Water, 7758-98-7 CuSO4
CON 6 hours, room temperature

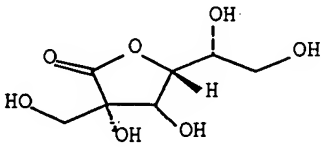
STAGE(4)
RGT H 497-19-8 Na2CO3
CON room temperature, neutralized

PRO D 70147-48-7, E 827046-33-3
NTE stereoselective

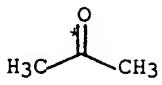
RX(2) OF 35 2 K + 2 C ===> D + L...



K

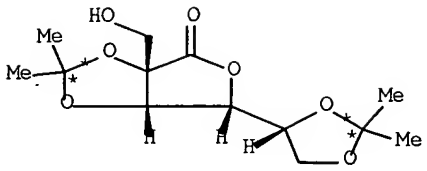


K

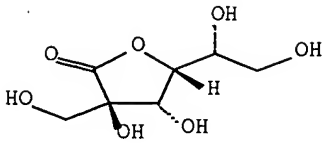


2 C

(2)
→



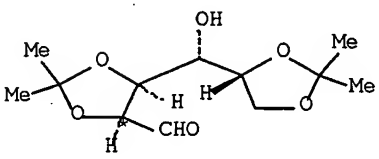
D



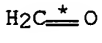
L

RX(2) RCT K 211623-21-1, C 67-64-1
RGT G 7664-93-9 H2SO4, J 7758-98-7 CuSO4
PRO D 70147-48-7, L 827046-35-5
SOL 67-64-1 Me2CO
CON 6 hours, room temperature

RX(3) OF 35 M + N ===> O...

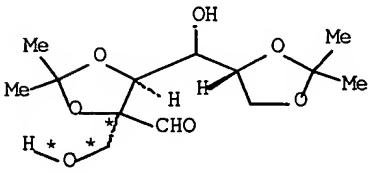


M



N

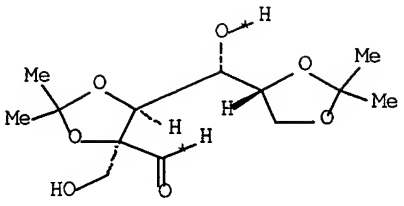
(3) →



O
YIELD 52%

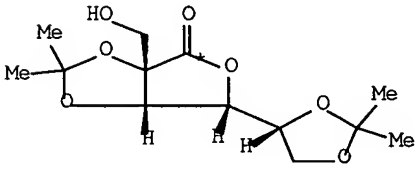
RX(3) RCT M 40036-82-6, N 50-00-0
RGT P 584-08-7 K2CO3
PRO O 70147-46-5
SOL 7732-18-5 Water
NTE stereoselective

RX(4) OF 35 ...O ===> D...



O

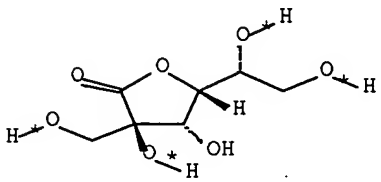
(4)



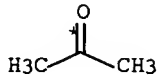
D
YIELD 86%

RX(4) RCT O 70147-46-5
RGT Q 513-77-9 BaCO3, R 7726-95-6 Br2
PRO D 70147-48-7
SOL 7732-18-5 Water

RX(5) OF 35 ...L + 2 C ===> E...

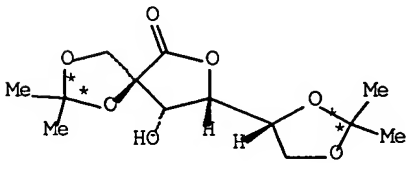


L



2 C

(5)

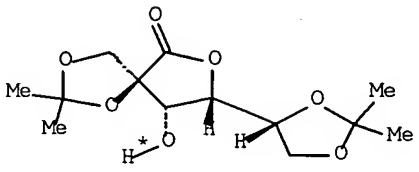


E

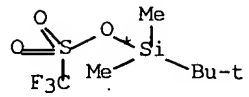
RX(5) RCT L 827046-35-5, C 67-64-1

RGT G 7664-93-9 H2SO4, J 7758-98-7 CuSO4
PRO E 827046-33-3
SOL 67-64-1 Me2CO

RX(6) OF 35 ...E + S ===> T

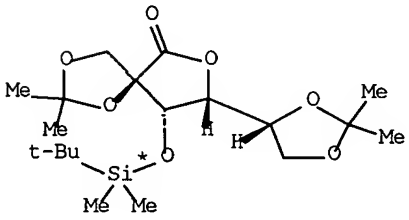


E



S

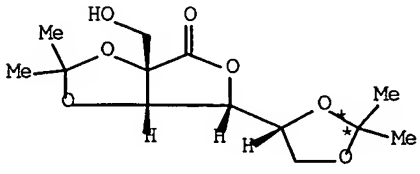
(6) ⟶



T

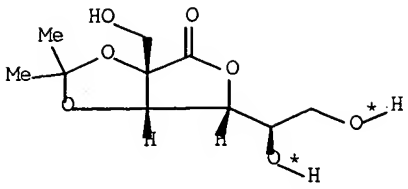
RX(6) RCT E 827046-33-3, S 69739-34-0
RGT U 108-48-5 2,6-Lutidine
PRO T 827046-34-4
SOL 75-09-2 CH2Cl2

RX(7) OF 35 ...D ===> W...



D

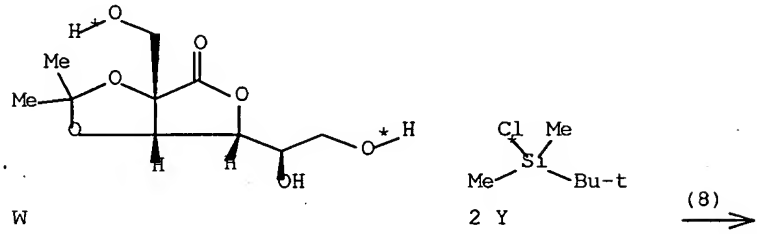
(7) ⟶



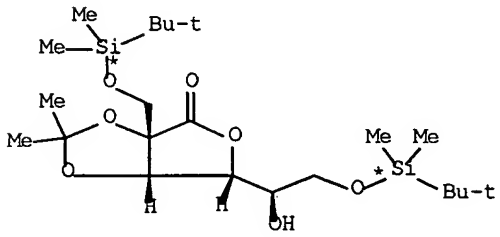
W
YIELD 100%

RX(7) RCT D 70147-48-7
RGT X 64-19-7 AcOH
PRO W 827046-36-6
SOL 7732-18-5 Water
CON room temperature

RX(8) OF 35 ...W + 2 Y ===> Z...



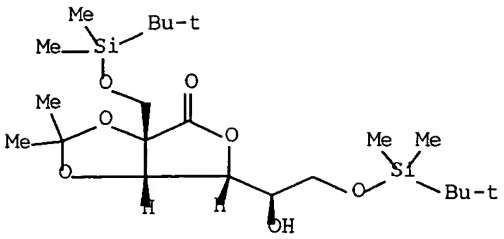
W 2 Y (8)



Z
YIELD 73%

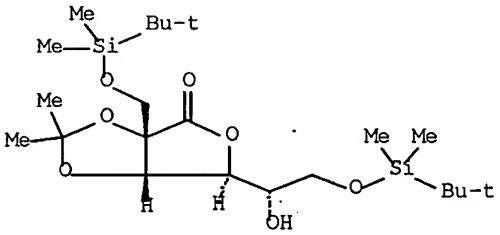
RX(8) RCT W 827046-36-6, Y 18162-48-6
RGT AA 110-86-1 Pyridine
PRO Z 827046-37-7
SOL 68-12-2 DMF
NTE regioselective

RX(9) OF 35 ...Z ===> AC



Z

(9) →



AC
YIELD 58%

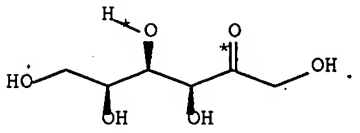
RX(9) RCT Z 827046-37-7

STAGE(1)
RGT AA 110-86-1 Pyridine, AD 358-23-6 (F3CSO2)2O
SOL 75-09-2 CH2Cl2

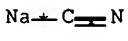
STAGE(2)
RGT AE 1310-58-3 KOH
SOL 7732-18-5 Water, 123-91-1 Dioxane

PRO AC 827046-32-2
NTE stereoselective

RX(10) OF 35 2 **AG** + 2 B ===> **AH** + AI

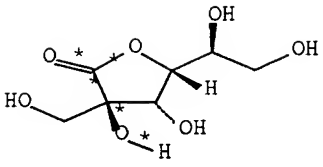


2 AG

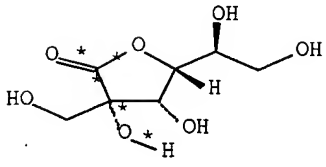


2 B

(10) →



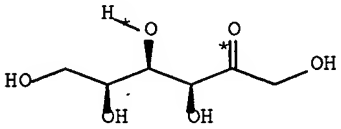
AH



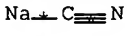
AI

RX(10) RCT AG **87-79-6**, B 143-33-9
PRO AH **827046-38-8**, AI 827046-39-9
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, room temperature
SUBSTAGE(2) 12 hours, reflux
SUBSTAGE(3) reflux -> room temperature

RX(11) OF 35 2 **AG** + 2 B ===> **AH** + AI

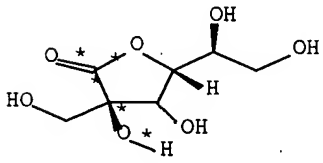


2 AG

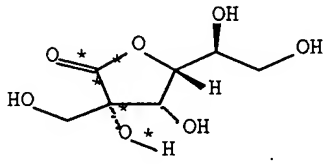


2 B

(11)



AH



AI
YIELD 17%

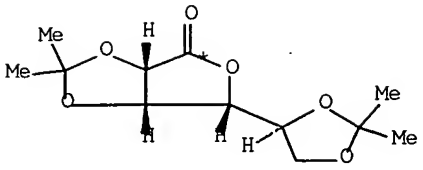
RX(11) RCT AG **87-79-6**, B 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, room temperature
SUBSTAGE(2) 12 hours, reflux
SUBSTAGE(3) reflux -> room temperature

STAGE(2)
RGT Q 513-77-9 BaCO3, R 7726-95-6 Br2
SOL 7732-18-5 Water

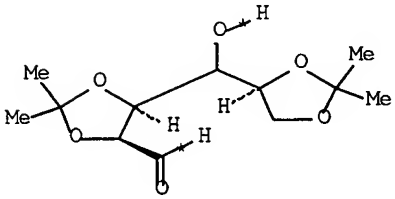
PRO AH **827046-38-8**, AI 827046-39-9

RX(12) OF 35 AJ ===> AK



AJ

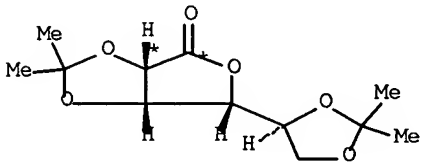
(12) →



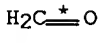
AK

RX(12) RCT AJ 7306-64-1
RGT AL 1191-15-7 AlH(Bu-i)2
PRO AK 137126-23-9
SOL 109-99-9 THF
NTE stereoselective

RX(13) OF 35 AJ + N ===> AN...

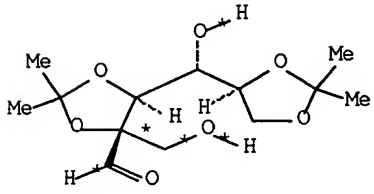


AJ



N

(13) →



AN
YIELD 70%

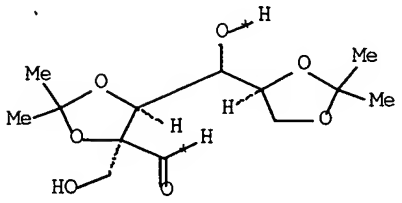
RX(13) RCT AJ 7306-64-1

STAGE(1)
RGT AL 1191-15-7 AlH(Bu-i)2
SOL 109-99-9 THF

STAGE(2)
RCT N 50-00-0
RGT P 584-08-7 K2CO3
SOL 7732-18-5 Water

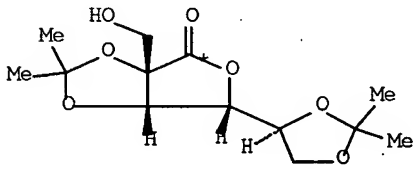
PRO AN 827046-41-3
NTE stereoselective

RX(14) OF 35 ...AN ===> AO



AN

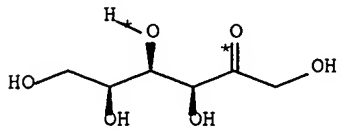
(14)



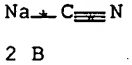
AO
YIELD 96%

RX(14) RCT AN 827046-41-3
RGT Q 513-77-9 BaCO3, R 7726-95-6 Br2
PRO AO 64487-91-8
SOL 7732-18-5 Water, 123-91-1 Dioxane

RX(10) OF 35 2 **AG** + 2 B ===> **AH** + AI

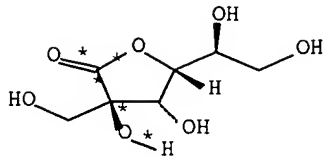


2 AG

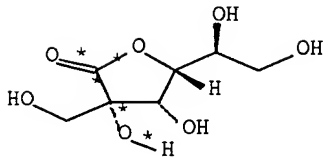


2 B

(10)



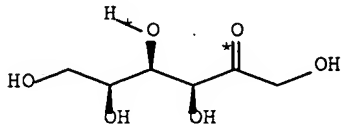
AH



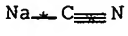
AI

RX(10) RCT AG **87-79-6**, B 143-33-9
PRO AH **827046-38-8**, AI 827046-39-9
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, room temperature
SUBSTAGE(2) 12 hours, reflux
SUBSTAGE(3) reflux -> room temperature

RX(11) OF 35 2 **AG** + 2 B ===> **AH** + AI

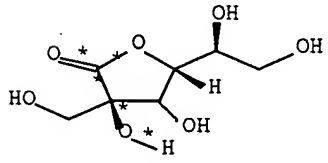


2 AG

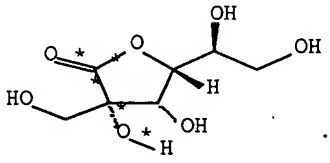


2 B

(11) ⟶



AH



AI
YIELD 17%

RX(11) RCT AG **87-79-6**, B 143-33-9

STAGE(1)
SOL 7732-18-5 Water
CON SUBSTAGE(1) 24 hours, room temperature
SUBSTAGE(2) 12 hours, reflux
SUBSTAGE(3) reflux -> room temperature

STAGE(2)
RGT Q 513-77-9 BaCO3, R 7726-95-6 Br2
SOL 7732-18-5 Water

PRO AH **827046-38-8**, AI 827046-39-9

L30 ANSWER 3 OF 3 CASREACT COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 141:38814 CASREACT Full-text

TITLE: Process for the production of 2'-branched nucleosides
INVENTOR(S): Storer, Richard; Moussa, Adel; Chaudhuri, Narayan; Waligora, Frank
PATENT ASSIGNEE(S): Idenix Cayman Limited, Cayman I.
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C07H
CLASSIFICATION: 33-9 (Carbohydrates)
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052899	A2	20040624	WO 2003-US39643	20031212
WO 2004052899	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2509687	AA	20040624	CA 2003-2509687	20031212
AU 2003300901	A1	20040630	AU 2003-300901	20031212
US 2005020825	A1	20050127	US 2003-735408	20031212
EP 1585529	A2	20051019	EP 2003-812993	20031212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1744903	A	20060308	CN 2003-80109576	20031212
JP 2006514993	T2	20060518	JP 2005-511773	20031212
NO 2005003115	A	20050818	NO 2005-3115	20050624

PRIORITY APPLN. INFO.: US 2002-432766P 20021212
US 2003-466194P 20030428
WO 2003-US39643 20031212

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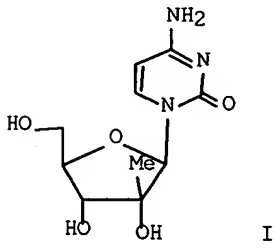


I

ABSTRACT:
The present invention provides an improved process for preparing ss-D and ss-L 2'-C-methyl-nucleosides and 2'-C-methyl-3'-O-ester nucleosides,

e.g. I, via glycosylation of methylribonolactone with nucleobases.

SUPPL. TERM: nucleoside prepn methylribonolactone glycosylation nucleobase

INDEX TERM: Glycosylation
(process for production of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

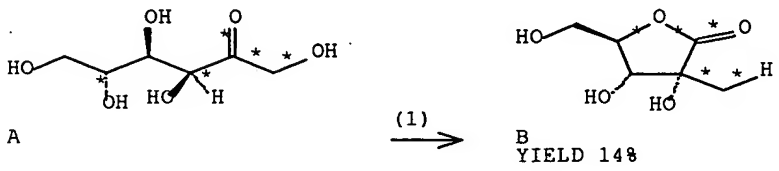
INDEX TERM: Nucleosides, preparation
ROLE: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for production of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

INDEX TERM: 492-30-8P 7392-74-7P 15397-15-6P 20724-73-6P
23643-36-9P 31448-54-1P 172722-75-7P
640725-69-5P 640725-70-8P 642075-42-1P
642075-43-2P 642075-44-3P
ROLE: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for production of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

INDEX TERM: 640725-71-9P
ROLE: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for production of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

INDEX TERM: 57-48-7, D-Fructose, reactions 66-22-8, Uracil, reactions 71-30-7, Cytosine 72-18-4, L-Valine, reactions 75-77-4, Trimethylsilyl chloride, reactions 999-97-3, Hexamethyldisilazane
4637-24-5 10416-59-8, BSA 13734-41-3
18162-48-6, tert-Butyldimethylchlorosilane
58479-61-1, tert-Butyldiphenylchlorosilane
701295-32-1
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(process for production of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

RX(1) OF 115 **A** ===> **B**...

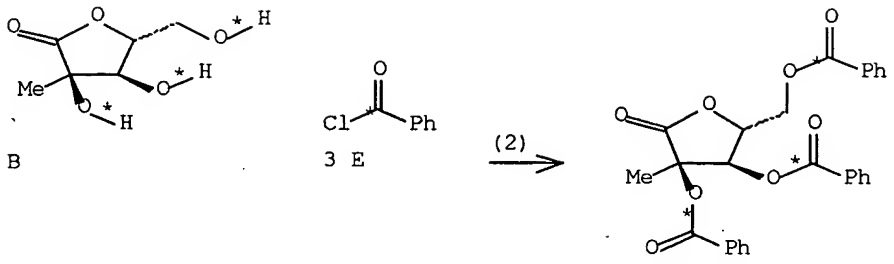


A

B
YIELD 14%

RX(1) RCT A **57-48-7**
RGT C 1305-78-8 CaO
PRO B **492-30-8**
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) OF 115 ...B + 3 E ===> F...



RX(2) RCT B 492-30-8

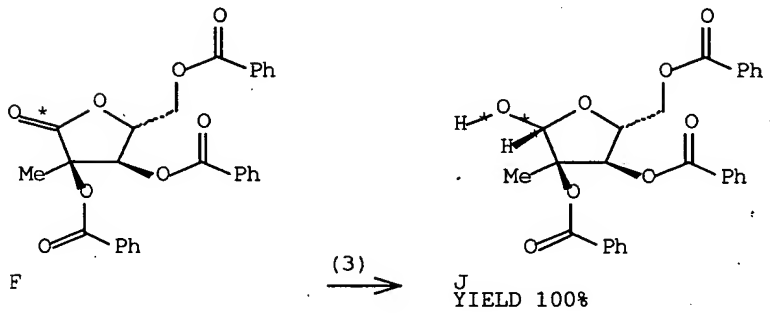
STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2
CON SUBSTAGE(1) 30 minutes, 25 deg C
SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)
RCT E 98-88-4
CON SUBSTAGE(1) 15 minutes
SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)
SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3) OF 115 ...**F** ===> **J**...



RX(3)

STAGE(1)
RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe

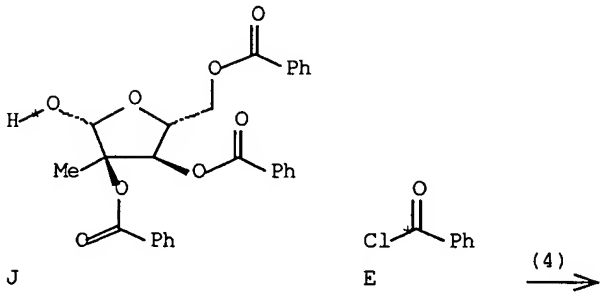
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)
RCT F **7392-74-7**
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

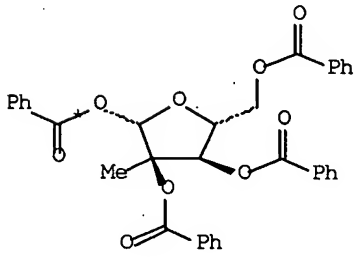
STAGE(3)
RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J **172722-75-7**

RX(4) OF 115 ...J + E ===> P...



J E



P
YIELD 52%

RX(4) RCT J 172722-75-7, E 98-88-4

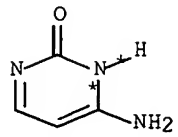
STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 109-99-9 THF
CON SUBSTAGE(1) 5 minutes
SUBSTAGE(2) overnight, room temperature

STAGE(2)
RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water

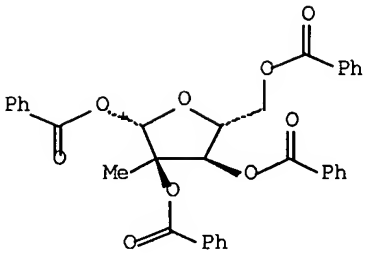
PRO P 15397-15-6

NTE work up

RX(5) OF 115 ...S + P ===> T...

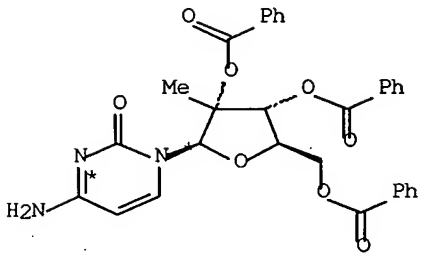


S



P

(5) →



T
YIELD 100%

RX(5) RCT S 71-30-7

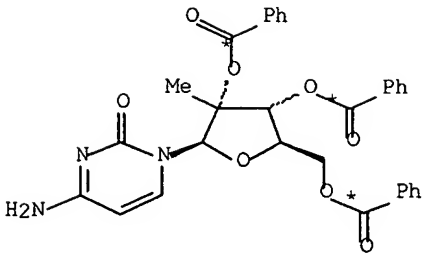
STAGE(1)
RGT U 10416-59-8 Me3SiN:CMeOSiMe3
SOL 75-05-8 MeCN
CON SUBSTAGE(2) 80 deg C
SUBSTAGE(3) 1 hour, 80 deg C

STAGE(2)
RCT P 15397-15-6
RGT V 7646-78-8 SnCl4
CON SUBSTAGE(2) 50 deg C
SUBSTAGE(3) 15 minutes
SUBSTAGE(4) 1 hour, 80 deg C

STAGE(3)
RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water

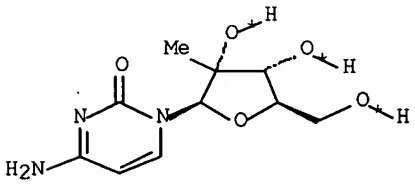
PRO T 640725-69-5

RX(6) OF 115 ...T ===> X...



T

(6) →



X
YIELD 90%

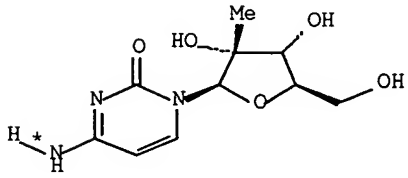
RX(6) RCT T 640725-69-5

STAGE(1)
RGT Y 124-41-4 NaOMe
SOL 67-56-1 MeOH
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 2 hours, room temperature

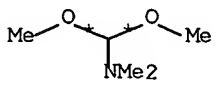
STAGE(2)
SOL 64-17-5 EtOH
CON 1 hour, 20 deg C

PRO X 20724-73-6

RX(7) OF 115 ...X + AA ===> AB...

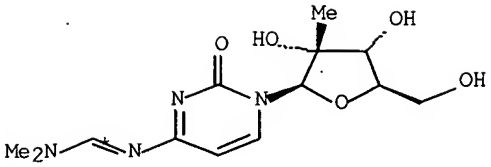


X



AA

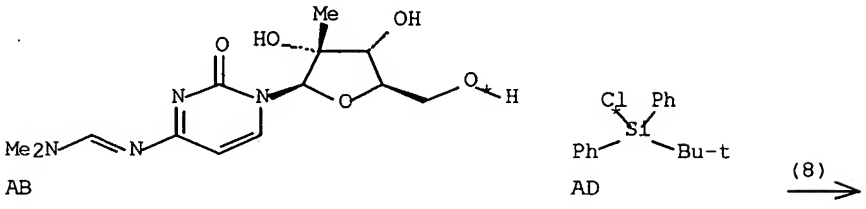
(7) →



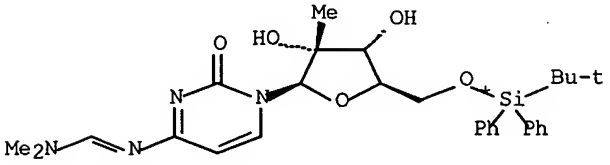
AB
YIELD 79%

RX(7) RCT X 20724-73-6, AA 4637-24-5
PRO AB 642075-42-1
SOL 68-12-2 DMF
CON 1 hour, 20 - 22 deg C

RX(8) OF 115 ...AB + AD ===> AE...



AB AD (8)



AE
YIELD 95%

RX(8) RCT AB 642075-42-1

STAGE(1)
SOL 75-09-2 CH2Cl2
CON 30 minutes, room temperature

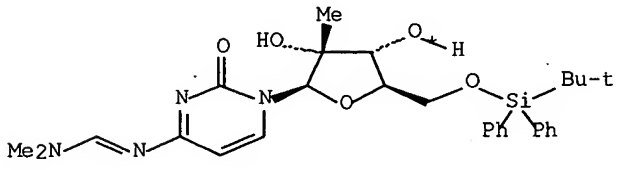
STAGE(2)
RCT AD 58479-61-1
RGT AF 288-32-4 1H-Imidazole
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) room temperature -> 10 deg C
SUBSTAGE(2) 20 minutes, 10 - 12 deg C
SUBSTAGE(3) 1.5 hours
SUBSTAGE(4) 20 minutes, 10 - 12 deg C
SUBSTAGE(5) 1 hour
SUBSTAGE(6) 20 minutes, 10 - 12 deg C

SUBSTAGE(7) 1.5 hours, 12 - 15 deg C

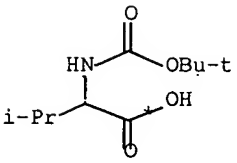
STAGE(3)
RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water

PRO AE 642075-43-2

RX(9) OF 115 ...AE + AH ===> AI

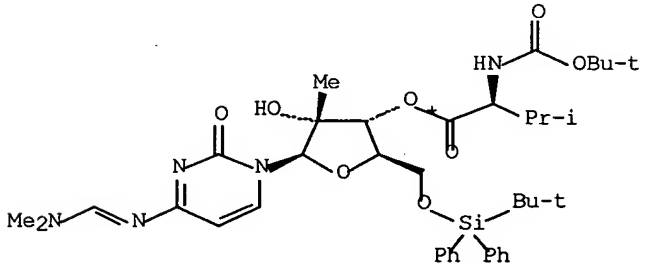


AE



AH

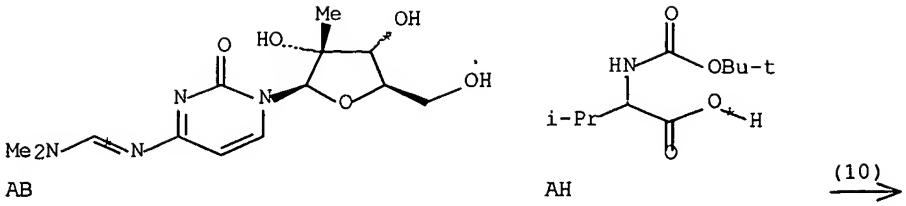
(9)



AI

RX(9) RCT AE 642075-43-2, AH 13734-41-3
RGT AJ 1892-57-5 EtN:C:N(CH2)3NMe2, H 1122-58-3 4-DMAP
PRO AI 642075-44-3
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) 25 deg C
SUBSTAGE(2) 4 hours, 25 deg C
SUBSTAGE(3) 25 deg C
SUBSTAGE(4) 2 hours, 25 deg C

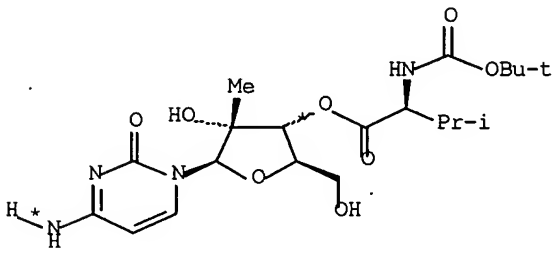
RX(10) OF 115 ...AB + AH ===> AK...



AB

AH

(10)



AK
YIELD 52%

RX(10) RCT AB 642075-42-1

STAGE(1)
SOL 75-09-2 CH2Cl2
CON 30 minutes, room temperature

STAGE(2)
RGT AD 58479-61-1 t-BuSiPh2Cl, AF 288-32-4 1H-Imidazole
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) room temperature -> 10 deg C
SUBSTAGE(2) 20 minutes, 10 - 12 deg C
SUBSTAGE(3) 1.5 hours
SUBSTAGE(4) 20 minutes, 10 - 12 deg C
SUBSTAGE(5) 1 hour
SUBSTAGE(6) 20 minutes, 10 - 12 deg C
SUBSTAGE(7) 1.5 hours, 12 - 15 deg C

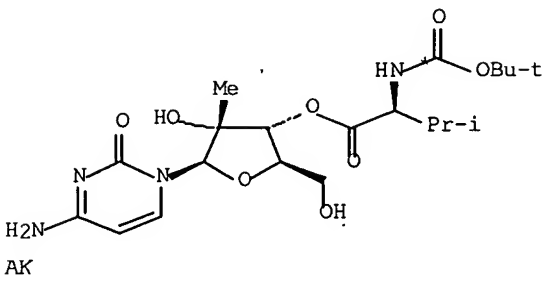
STAGE(3)
RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water

STAGE(4)
RCT AH 13734-41-3
RGT AJ 1892-57-5 EtN:C:N(CH2)3NMe2, H 1122-58-3 4-DMAP
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) 25 deg C
SUBSTAGE(2) 4 hours, 25 deg C
SUBSTAGE(3) 25 deg C
SUBSTAGE(4) 2 hours, 25 deg C

STAGE(5)
RGT AL 12125-01-8 (NH4)F
SOL 67-56-1 MeOH, 141-78-6 AcOEt
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 4 hours, 65 deg C

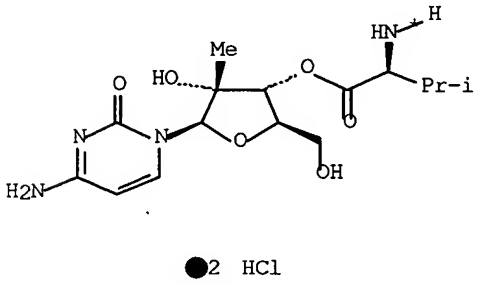
PRO AK 640725-70-8

RX(11) OF 115 ...AK ===> AN



AK

(11)

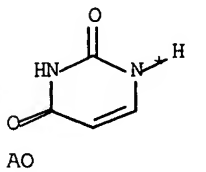


●2 HCl

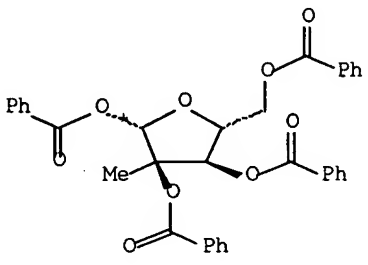
AN
YIELD 97%

RX(11) RCT AK 640725-70-8
RGT L 7647-01-0 HCl
PRO AN 640725-71-9
SOL 64-17-5 EtOH
CON SUBSTAGE(1) 1 hour, <30 deg C
SUBSTAGE(2) 4 hours

RX(12) OF 115 ...AO + P ===> AP...

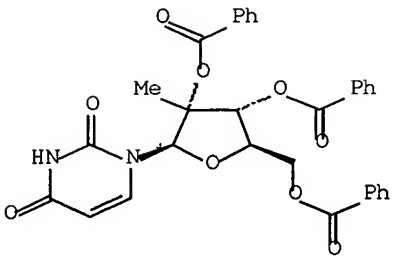


AO



P

(12)



AP
YIELD 65%

RX(12) RCT AO 66-22-8

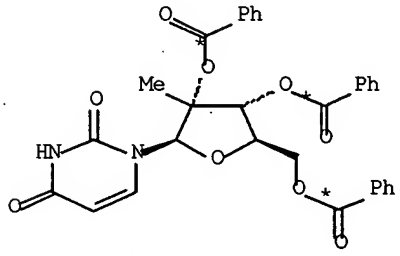
STAGE(1)
RGT U 10416-59-8 Me3SiN:CMeOSiMe3
SOL 75-05-8 MeCN
CON 30 minutes, reflux

STAGE(2)
RCT P 15397-15-6
RGT V 7646-78-8 SnCl4
SOL 75-05-8 MeCN
CON 4 hours, reflux

STAGE(3)
RGT Q 144-55-8 NaHCO3
SOL 7732-18-5 Water, 141-78-6 AcOEt

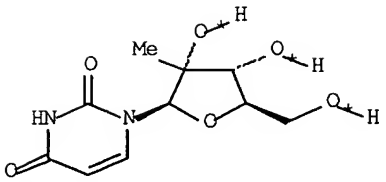
PRO AP 23643-36-9

RX(13) OF 115 ...AP ===> AQ...



AP

(13)



AQ
YIELD 87%

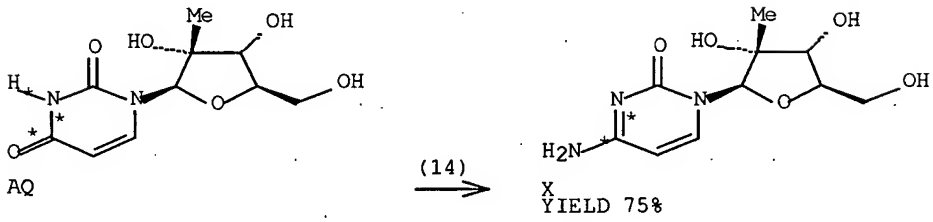
RX(13) RCT AP 23643-36-9

STAGE(1)
RGT Y 124-41-4 NaOMe
SOL 67-56-1 MeOH
CON 4.5 hours, room temperature

STAGE(2)
RGT AR 11114-15-1 DOWEX 50W
CON room temperature, neutralized

PRO AQ 31448-54-1

RX(14) OF 115 ...AQ ===> X...



AQ

X
YIELD 75%

RX(14) RCT AQ 31448-54-1

STAGE(1)
RGT AS 75-77-4 Me3SiCl, AT 120-94-5 1-Methylpyrrolidine
SOL 75-05-8 MeCN
CON SUBSTAGE(1) 3.5 hours, room temperature
SUBSTAGE(2) room temperature -> 0 deg C

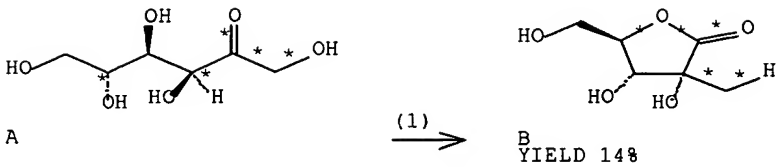
STAGE(2)
SOL 407-25-0 (CF3CO)2O
CON SUBSTAGE(2) 30 minutes

STAGE(3)
RGT AU 100-02-7 4-O2NC6H4OH
CON SUBSTAGE(2) 3 hours

STAGE(4)
RGT D 7732-18-5 Water

PRO X 20724-73-6

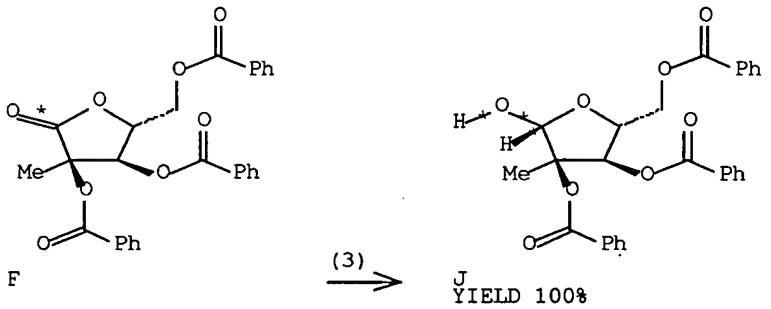
RX(1) OF 115 **A** ===> **B**...



A (1) B YIELD 14%

RX(1) RCT A **57-48-7**
RGT C 1305-78-8 CaO
PRO B **492-30-8**
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(3) OF 115 ...**F** ===> **J**...



F (3) J YIELD 100%

RX(3)

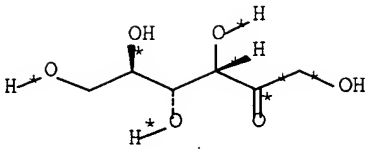
STAGE(1)
RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)
RCT F **7392-74-7**
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

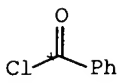
STAGE(3)
RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J **172722-75-7**

RX(15) OF 115 COMPOSED OF RX(1), RX(2)
RX(15) **A** + 3 E ===> **F**

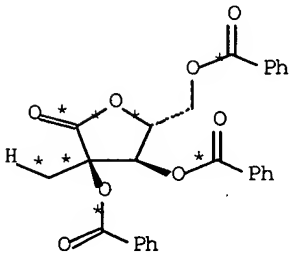


A



3 E

2 STEPS



F
YIELD 83%

RX(1) RCT A **57-48-7**
RGT C 1305-78-8 CaO
PRO B 492-30-8
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) RCT B 492-30-8

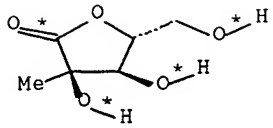
STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2
CON SUBSTAGE(1) 30 minutes, 25 deg C
SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)
RCT E 98-88-4
CON SUBSTAGE(1) 15 minutes
SUBSTAGE(2) 2 hours, 25 deg C

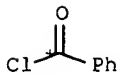
STAGE(3)
SOL 7732-18-5 Water

PRO F **7392-74-7**

RX(16) OF 115 COMPOSED OF RX(2), RX(3)
RX(16) **B** + 3 E ===> **J**

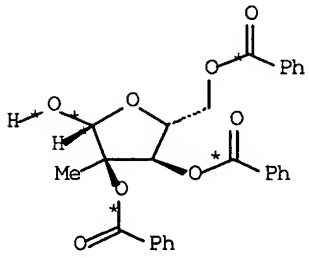


B



3 E

2 STEPS →



J
YIELD 100%

RX(2) RCT B **492-30-8**

STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2
CON SUBSTAGE(1) 30 minutes, 25 deg C
SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)
RCT E 98-88-4
CON SUBSTAGE(1) 15 minutes
SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)
SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3)

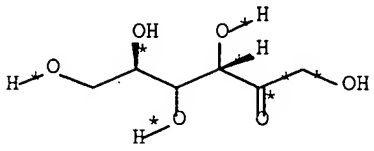
STAGE(1)
RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

STAGE(2)
RCT F 7392-74-7
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)
RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J **172722-75-7**

RX(29) OF 115 COMPOSED OF RX(1), RX(2), RX(3)
RX(29) **A** + 3 E ===> **J**



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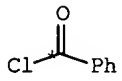
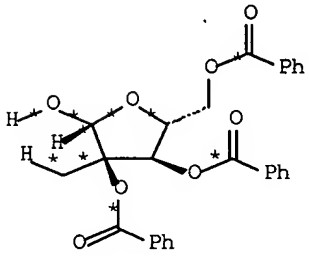


3 E

3 STEPS



J
YIELD 100%

RX(1) RCT A **57-48-7**
RGT C 1305-78-8 CaO
PRO B 492-30-8
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) RCT B 492-30-8

STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2
CON SUBSTAGE(1) 30 minutes, 25 deg C
SUBSTAGE(2) 25 deg C -> 5 deg C

STAGE(2)
RCT E 98-88-4
CON SUBSTAGE(1) 15 minutes
SUBSTAGE(2) 2 hours, 25 deg C

STAGE(3)
SOL 7732-18-5 Water

PRO F 7392-74-7

RX(3)

STAGE(1)

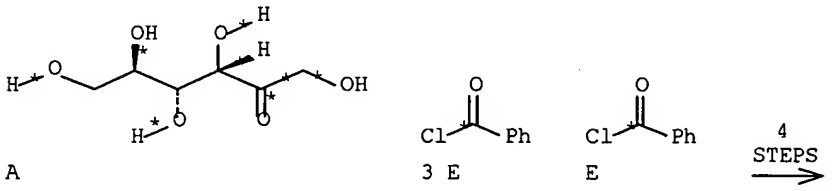
RGT K 22722-98-1 Red-Al
SOL 64-17-5 EtOH, 108-88-3 PhMe
CON SUBSTAGE(1) 5 minutes, 0 deg C
SUBSTAGE(2) 15 minutes, 0 deg C

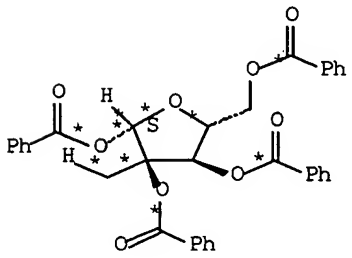
STAGE(2)
RCT F 7392-74-7
CON SUBSTAGE(1) 10 minutes
SUBSTAGE(2) 40 minutes, -5 deg C

STAGE(3)
RGT L 7647-01-0 HCl
SOL 7732-18-5 Water, 67-64-1 Me2CO
CON 0 deg C

PRO J **172722-75-7**

RX(31) OF 115 COMPOSED OF RX(1), RX(2), RX(3), RX(4)
RX(31) **A** + 4 E ===> **P**





P
YIELD 52%

RX(1) RCT A **57-48-7**
RGT C 1305-78-8 CaO
PRO B 492-30-8
SOL 7732-18-5 Water
CON SUBSTAGE(1) 5 minutes, room temperature
SUBSTAGE(2) 5 minutes, 40 deg C
SUBSTAGE(3) 3 hours
SUBSTAGE(4) 22 hours, 25 deg C, pH 13.06
NTE work up

RX(2) RCT B 492-30-8

STAGE(1)
RGT G 121-44-8 Et3N, H 1122-58-3 4-DMAP
SOL 110-71-4 (CH2OMe)2

```
            CON   SUBSTAGE(1) 30 minutes, 25 deg C
                  SUBSTAGE(2) 25 deg C -> 5 deg C

         STAGE(2)
            RCT   E 98-88-4
            CON   SUBSTAGE(1) 15 minutes
                  SUBSTAGE(2) 2 hours, 25 deg C

         STAGE(3)
            SOL   7732-18-5 Water

      PRO   F 7392-74-7

RX(3)

         STAGE(1)
            RGT   K 22722-98-1 Red-Al
            SOL   64-17-5 EtOH, 108-88-3 PhMe
            CON   SUBSTAGE(1) 5 minutes, 0 deg C
                  SUBSTAGE(2) 15 minutes, 0 deg C

         STAGE(2)
            RCT   F 7392-74-7
            CON   SUBSTAGE(1) 10 minutes
                  SUBSTAGE(2) 40 minutes, -5 deg C

         STAGE(3)
            RGT   L 7647-01-0 HCl
            SOL   7732-18-5 Water, 67-64-1 Me2CO
            CON   0 deg C

      PRO   J 172722-75-7

RX(4)    RCT   J 172722-75-7, E 98-88-4

         STAGE(1)
            RGT   G 121-44-8 Et3N, H 1122-58-3 4-DMAP
            SOL   109-99-9 THF
            CON   SUBSTAGE(1) 5 minutes
                  SUBSTAGE(2) overnight, room temperature

         STAGE(2)
            RGT   Q 144-55-8 NaHCO3
            SOL   7732-18-5 Water

      PRO   P 15397-15-6
      NTE   work up


=> => d que stat l82
L9            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  492-30-8/RN
L10           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  57-48-7/RN
L11           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  15397-15-6/RN
L33           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  65312-92-7/RN
L34           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  32248-43-4/RN
L35           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  223258-89-7/RN
L37           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  1333-74-0/RN
L39           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  17326-58-8/RN
L44           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  7392-74-7/RN
L45           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  172722-75-7/RN
L47        1664 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10/P
L48           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11/P
L49           7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44/P
L50           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45/P
L51        1674 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L47 OR L48 OR L49 OR
                L50)
L53          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9/RCT
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L54          26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L9 OR FRUCTOSE/RCT)
L55           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L53 AND L51
L56         151 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33
L57        1242 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L34
L58           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35
L59      317085 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37
L60           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39
L61      318481 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L56 OR L57 OR L58 OR
                L59 OR L60)
L63          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L61 AND L51
L64           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54 AND L51
L65          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L55 OR (L63 OR L64)
L66          11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 AND L61
L69             QUE  ABB=ON  PLU=ON  PRODUC? OR PROD# OR GENERAT? OR MA
                NUF? OR MFR# OR CREAT? OR FORM## OR FORMING# OR FORMAT?
                 OR MAKE# OR MADE# OR MAKIN# OR FABRICAT? OR SYNTHESI?
                OR PREPAR? OR PREP#
L70          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L63 OR L64 OR L65 OR
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L71          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L70 AND L69
L72          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L66 OR L71
L73          26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L74       32087 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10
L75          16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L76           8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44
L77           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45
L78       32107 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L74 OR L75 OR L76 OR
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L80        7480 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L78(L)L69
L81           5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L80 AND L73
L82          17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L81 OR L72


=> d l82 1-17 ibib abs hitstr hitind

L82  ANSWER 1 OF 17  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:615096  HCAPLUS  Full-text
DOCUMENT NUMBER:          145:123184
TITLE:                    Method for manufacturing mannitol
                          from sucrose
INVENTOR(S):              Zhang, Chaohui; Wang, Jianping; He, Junlin
PATENT ASSIGNEE(S):       Nanning Chemical Research and Design
                          Institute, Peop. Rep. China
SOURCE:                   Faming Zhuanli Shenqing Gongkai Shuomingshu,
                          10 pp.
                          CODEN: CNXXEV
DOCUMENT TYPE:            Patent
LANGUAGE:                 Chinese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

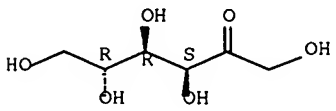
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------
     --------
     CN 1687432           A     20051026    CN 2005-10018565
                                                                   2005
                                                                   0413
PRIORITY APPLN. INFO.:                     CN 2005-10018565
                                                                   2005
                                                                   0413

OTHER SOURCE(S):          CASREACT 145:123184
AB   The title method comprises: (1) hydrolyzing sucrose with a simulated moving bed to
     obtain glucose and fructose, (2) separating glucose-rich fraction, (3) isomerizing with
     glucose isomerase, and carrying out ion exchange to purify, (4) combining with the
     fructose-rich fraction for hydrogenating at 100-180ÅC under 4-7 MPa for 1-3 h in the
```

presence of a hydrogenation catalyst, and (5) filtering, ion-exchanging, concentrating, crystallizing, centrifugating, and drying to obtain mannitol in 42% yield.

IT **57-48-7P**, Fructose, **preparation**
RL: BPN (Biosynthetic preparation); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(method for **preparing** mannitol from sucrose)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **1333-74-0**, Hydrogen, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(method for **preparing** mannitol from sucrose)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

IC ICM C12P007-18
ICS C07C031-26; C07C029-09; C07C029-141
CC 16-5 (Fermentation and Bioindustrial Chemistry)
ST mannitol **prepn** sucrose glucose fructose enzymic isomerization
IT Catalysts
Hydrolysis
(method for **preparing** mannitol from sucrose)
IT 7440-02-0, Raney nickel, uses
RL: CAT (Catalyst use); USES (Uses)
(catalysts; method for **preparing** mannitol from sucrose)
IT 50-99-7P, D-Glucose, **preparation**
RL: BCP (Biochemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(method for **preparing** mannitol from sucrose)
IT 69-65-8P, Mannitol
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(method for **preparing** mannitol from sucrose)
IT **57-48-7P**, Fructose, **preparation**
RL: BPN (Biosynthetic preparation); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(method for **preparing** mannitol from sucrose)
IT 57-50-1, Sucrose, biological studies
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(method for **preparing** mannitol from sucrose)
IT 9055-00-9, Glucose isomerase
RL: CAT (Catalyst use); USES (Uses)
(method for **preparing** mannitol from sucrose)

IT **1333-74-0**, Hydrogen, processes
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(method for **preparing** mannitol from sucrose)
IT 7647-01-0, Hydrochloric acid, uses
RL: NUU (Other use, unclassified); USES (Uses)
(method for **preparing** mannitol from sucrose)

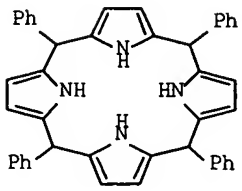
L82 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:209715 HCAPLUS Full-text
DOCUMENT NUMBER: 144:292126
TITLE: Methods, compositions, and apparatuses for **forming** macrocyclic compounds
INVENTOR(S): Johnson, Thomas E.; Fowler, Billy T.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006025859	A2	20060309	WO 2005-US5028	2005 0217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:		
US 2004-545131P	P	2004 0217
US 2005-59796	A	2005 0217

GI



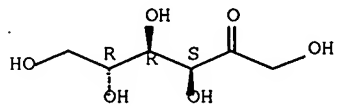
I

AB The invention is related to a process for **manufacturing** of at least one macrocyclic compound, e.g. tetraphenylporphyrogen I, by (a) providing a reaction system comprising one or more reactants in a reaction medium, which are capable of **forming** the macrocycle through a desired reaction pathway that includes at least cyclization reaction(s), and which are further capable of **forming** undesired oligomers through at least one undesired reaction pathway that includes undesirable oligomerization reactions; and (b) modulating oligomerization reactions in the reaction medium, so as to reduce **formation** of the undesired oligomers and/or to reduce separation of the undesired oligomers from the reaction medium, relative to corresponding unmodulated oligomerization reactions. Oligomerization control additives are claimed. Cyclization solvents, and solvents that assist with spontaneous separation of the macrocycle from the reaction medium, are also claimed. Reaction of benzaldehyde with pyrrole in a reaction composition that contained about 37.5% by volume MeOH (precipitating solvent), 62.5% by volume H2O (oligomerization control additive), and 0.014 g/mL NaCl (separation additive) gave tetraphenylporphyrogen I, in about 85% yield, compared to less than 1% in the absence of any oligomerization control. Prophetic examples of addnl. potential macrocyclic compds., e.g. porphyrins, macrocyclic imines, aryl boronates, crown ethers, cyclic peptides, etc., are also given and claimed.

IT **57-48-7P**, Fructose, **preparation**
1333-74-0P, Hydrogen, **preparation**
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(oligomerization control additive; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

CC 21-2 (General Organic Chemistry)
Section cross-reference(s): 26, 28, 29, 34, 45

ST macrocyclic **prepn** macrocyclization oligomerization control additive; phenylporphyrinogen porphyrin imine cyclic peptide aryl boronate lactone **prepn**; aminomethylphosphine porphyrinogen calixpyrrole dibutyltin dicarboxylate macrocyclic **prepn**

IT Alkynes
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkadiynes, precursors for arylene ethynylene macrocycles; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Silanes
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(alkoxy, oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Diphosphates

RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(alkyl; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Sulfones
RL: IMF (Industrial manufacture); PREP (Preparation)
(aryl, macrocyclic aromatic thioether sulfone **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Macrocyclic compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(arylene ethynylene macrocyclic **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Borates
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(borate esters; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Acids, **preparation**
Group IIIA element compounds
RL: BYP (Byproduct); IMF (Industrial manufacture); RCT (Reactant); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(boronic acids; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(containing ether terminal groups; precursors for macrocyclic lactone; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Peptides, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(cyclic, macrocyclic cyclic peptide **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Acetals
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-; precursors for macrocyclic crown ethers; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diamines, aromatic, reactants; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diamines, precursors for macrocyclic imines; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(dicarboxylic, precursors for macrocyclic dibutyltin dicarboxylate; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(diketones, precursors for macrocycles; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Particles
(energized; oligomerization control additives; **preparation**

of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Crown ethers
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic crown ether **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Imines
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic imine **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Lactones
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic lactone **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Porphyrins
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic **products; preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Particles
(neutral, oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Anions
Cations
Zwitterions
(oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Alkyl halides
Amino acids, **preparation**
Bromides, **preparation**
Disulfides
Elements
Inorganic compounds
Organic compounds, **preparation**
Organometallic compounds
Peroxides, **preparation**
Radicals, **preparation**
Silanes
Sulfates, **preparation**
Sulfenic acids
Sulfinic acids
Sulfones
Sulfoxides
Thiols, **preparation**
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Polymerization
(oligomerization, control additives; use of oligomerization control additives to reduce **formation** of the undesired oligomers and/or to reduce separation of the undesired oligomers from the reaction medium)

IT Peptides, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptides flanked with thioether and thiol terminal groups; precursors for macrocyclic cyclic peptides; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(precursors for macrocyclic calix[4]pyrroles; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Dialdehydes
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for macrocyclic imines; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Aldehydes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for porphyrinogen; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Cyclization
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Phosphines
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Apparatus
Macrocyclization
(**preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Sulfonic acids, **preparation**
RL: BYP (Byproduct); CAT (Catalyst use); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(**preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Sulfites
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(sulfite esters; oligomerization control additives; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT Aromatic compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(sulfones, macrocyclic aromatic thioether sulfone **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT Rare earth metals, uses
RL: CAT (Catalyst use); USES (Uses)
(triflates; use of Lewis acids as cyclization catalyst in the **preparation** of porphyrinogens)

IT 16867-04-2, 2,3-Dihydroxypyridine
RL: RCT (Reactant); RACT (Reactant or reagent)
(aryl; precursor for macrocyclic boronates; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 97-94-9, Triethylboron 109-63-7, Boron trifluoride etherate 373-57-9 7446-70-0, Aluminum chloride (AlCl3), uses 7647-17-8, Cesium chloride (CsCl), uses 7784-18-1, Aluminum fluoride (AlF3) 7788-97-8, Chromium fluoride (CrF3) 10025-82-8, Indium chloride (InCl3) 10038-98-9, Germanium chloride (GeCl4) 10099-58-8, Lanthanum chloride (LaCl3) 13465-55-9 19423-80-4, Europium trichloride hydrate 144026-79-9, Scandium triflate
RL: CAT (Catalyst use); USES (Uses)
(catalyst; use of Lewis acids as cyclization catalyst in the **preparation** of porphyrinogens)

IT 65-85-0, Benzoic acid, uses 75-75-2, Methanesulfonic acid 76-03-9, Trichloroacetic acid, uses 76-05-1, Trifluoroacetic acid, uses 79-09-4, Propionic acid, uses 98-11-3, Benzenesulfonic acid, uses 104-15-4, p-Toluenesulfonic acid, uses 1493-13-6, Triflic acid 3144-16-9, Camphor sulfonic acid
RL: CAT (Catalyst use); USES (Uses)
(catalyst; use of protic acids as cyclization catalyst in the

preparation of porphyrinogens)

IT 50-00-0, **Formol**, uses 57-55-6, Propylene glycol, uses 60-29-7, Ethyl ether, uses 64-18-6, **Formic** acid, uses 67-63-0, Isopropanol, uses 67-66-3, Chloroform, uses 67-68-5, Dimethyl sulfoxide, uses 75-15-0, Carbon disulfide, uses 75-52-5, Nitromethane, uses 75-65-0, tert-Butanol, uses 78-83-1, Isobutanol, uses 78-93-3, Methyl ethyl ketone, uses 97-99-4 100-79-8, Solketal 107-21-1, Ethylene glycol, uses 108-88-3, Toluene, uses 109-86-4, Methyl cellosolve 109-99-9, Tetrahydrofuran, uses 110-71-4, Monoglyme 110-71-4D, Glyme, derivs. 110-80-5, Cellosolve 111-46-6, Diethylene glycol, uses 111-77-3, Methyl carbitol 111-90-0, Carbitol 111-96-6, Diglyme 112-25-4, Hexyl cellosolve 112-34-5, Butyl carbitol 112-35-6 112-36-7, Ethyl diglyme 112-49-2, Triglyme 112-50-5, Ethoxytriglycol 112-59-4, Hexyl carbitol 112-73-2, Dibutyl carbitol 123-91-1, 1,4-Dioxane, uses 124-16-3, 1-Butoxyethoxy-2-propanol 126-33-0, Sulfolane 138-86-3, Limonene 141-78-6, Ethyl acetate, uses 143-22-6, Butoxytriglycol 143-24-8, Tetraglyme 540-67-0, Methyl ethyl ether 680-31-9, Hexamethylphosphorictriamide, uses 872-50-4, N-Methyl-2-pyrrolidone, uses 5306-85-4, Dimethyl isosorbide 24800-44-0, Tripropylene glycol 25265-71-8, Dipropylene glycol 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol 29387-86-8 30136-13-1 31692-85-0, Glycofurol 101063-18-7, Propasol DM 214210-60-3, Propasol M 879096-90-9, Hydrosolv
RL: NUU (Other use, unclassified); USES (Uses)
(co-solvent; use of co-solvents for spontaneous separation of the macrocycle from the reaction medium)

IT 56-23-5, Carbon tetrachloride, uses 108-90-7, Chlorobenzene, uses
RL: NUU (Other use, unclassified); USES (Uses)
(cyclization solvent; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 7392-96-3DP, derivs.
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic dibutyltin dicarboxylate **products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 27226-54-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(macrocyclic porphyrinogen **product**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 7647-01-0P, Hydrochloric acid, **preparation** 7664-93-9P, Sulfuric acid, **preparation** 10035-10-6P, Hydrobromic acid, **preparation**
RL: BYP (Byproduct); CAT (Catalyst use); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, catalyst; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 121-44-8P, Triethylamine, **preparation**
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvent for sp[ontaneous separation of the macrocycle from the reaction medium; use of co-solvents for spontaneous separation of the macrocycle from the reaction medium)

IT 67-64-1P, Acetone, **preparation** 71-36-3P, n-Butanol, **preparation** 75-50-3P, Trimethylamine, **preparation** 109-89-7P, Diethylamine, **preparation** 124-40-3P, Dimethylamine, **preparation** 142-84-7P, Dipropylamine
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvent for spontaneous

separation of the macrocycle from the reaction medium; **prepn** . of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 56-81-5P, Glycerol, **preparation** 71-23-8P, n-Propanol, **preparation** 74-89-5P, Methylamine, **preparation** 75-04-7P, Ethylamine, **preparation** 107-10-8P, Propylamine, **preparation** 109-73-9P, Butylamine, **preparation** 7664-41-7P, Ammonia, **preparation**
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvent for the spontaneous separation of the macrocycle from the reaction medium; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 7732-18-5P, Water, **preparation**
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive, co-solvents for spontaneous separation of the macrocycle from the reaction medium; **prepn** . of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 108-95-2P, Phenol, **preparation**
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(oligomerization control additive, co-solvents for spontaneous separation of the macrocycle from the reaction medium; **prepn** . of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 64-17-5P, Ethanol, **preparation** 67-56-1P, Methanol, **preparation**
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive; co-solvent for spontaneous separation of the macrocycle from the reaction medium; **prepn** . of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 64-19-7P, Acetic acid, **preparation**
RL: BYP (Byproduct); CAT (Catalyst use); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive; cyclization solvent; catalyst; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 62-53-3P, Aniline, **preparation** 124-38-9P, Carbon dioxide, **preparation** 7783-06-4P, Dihydrogen sulfide, **preparation**
RL: BYP (Byproduct); NUU (Other use, unclassified); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(oligomerization control additive; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 50-21-5P, Lactic acid, **preparation** 50-99-7P, Glucose, **preparation** **57-48-7P**, Fructose, **preparation** 58-64-0P, Adenosine diphosphate, **preparation** 58-97-9P, Uridine 5'-monophosphate, **preparation** 58-98-0P, Uridine diphosphate, **preparation** 59-23-4P, Galactose, **preparation** 61-19-8P, Adenosine 5'-monophosphate, **preparation** 63-37-6P, Cytidine 5'-monophosphate 63-38-7P, Cytidine diphosphate 74-85-1P, Ethylene, **preparation** 74-90-8P, Hydrogen cyanide, **preparation** 75-47-8P, Iodoform 75-75-2DP, Methylsulfonic acid, mesylates 85-32-5P, Guanosine 5'-monophosphate 100-51-6P, Benzyl alcohol, **preparation** 108-98-5P, Thiophenol, **preparation** 110-86-1P, Pyridine, **preparation** 123-56-8P, Succinimide 146-91-8P, Guanosine diphosphate 149-91-7P, Gallic

acid, **preparation** 365-07-1P, Thymidine 5'-monophosphate 491-97-4P, Thymidine diphosphate 503-17-3P, 2-Butyne 556-64-9P, Methyl thiocyanate 630-08-0P, Carbon monoxide, **preparation** **1333-74-0P**, Hydrogen, **preparation** 1493-13-6DP, Triflic acid, triflates 2466-09-3P, Pyrophosphoric acid 6066-82-6P, N-Hydroxysuccinimide 7446-09-5P, Sulfur dioxide, **preparation** 7601-90-3P, Perchloric acid, **preparation** 7664-38-2P, Phosphoric acid, **preparation** 7727-37-9P, Nitrogen, **preparation** 7782-77-6P, Nitrous acid 7789-20-0P, Deuterium oxide 10034-85-2P, Hydroiodic acid 13444-71-8P, Periodic acid 77464-05-2P, N,N-Diisopropylurea
RL: BYP (Byproduct); RGT (Reagent); PREP (Preparation); RACT (Reactant or reagent)
(oligomerization control additive; **preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 1067-33-0, Dibutyltin diacetate
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor for macrocyclic dibutyltin dicarboxylate; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 100-39-0, (Bromomethyl)benzene 4238-71-5D, derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for bicyclic imidazolium-linked compds.; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 37116-97-5D, derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for macrocyclic aromatic thioether sulfones; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 74630-20-9D, derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for macrocyclic crown ethers; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 170111-05-4D, derivs. 878999-69-0D, hetero derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for macrocyclic heteroheptaphyrins; **prepn** . of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 109-97-7D, Pyrrole, derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursors for porphyrinogens; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 4396-11-6DP, Porphyrinogen, derivs.
RL: IMF (Industrial manufacture); PREP (Preparation)
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 100-52-7, Benzaldehyde, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(**preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 108-46-3DP, Resorcinol, derivs.
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** of macrocyclic compds. via macrocyclization by modulating oligomerization reactions in the reaction medium)

IT 17009-90-4DP, Imidazolium, bicyclic imidazolium-linked compds.
RL: IMF (Industrial manufacture); PREP (Preparation)
(**products**; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 7632-05-5, Sodium phosphate
RL: NUU (Other use, unclassified); USES (Uses)

(salt additive; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

IT 7647-14-5, Sodium chloride (NaCl), uses
RL: NUU (Other use, unclassified); USES (Uses)
(separation additive salt; **preparation** of macrocyclic compds. via macro/cyclization by modulating oligomerization reactions in the reaction medium)

L82 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1052171 HCAPLUS Full-text
DOCUMENT NUMBER: 144:375427
TITLE: Comparative performance of thermophilic and mesophilic anaerobic hydrogen fermentation
AUTHOR(S): Liang, T. M.; Cheng, S. S.; Wang, Y. F.; Bai, M. D.; Wu, K. L.
CORPORATE SOURCE: Department of Environmental Engineering, National Cheng Kung University, Tainan, 701, Taiwan
SOURCE: Environmental Biotechnology: Advancement in Water and Wastewater Applications in the Tropics, Selected Proceedings of the IWA International Conference on Environmental Biotechnology, Kuala Lumpur, Malaysia, Dec. 9-10, 2003 (2004), Meeting Date 2003, 69-75. Editor(s): Ujang, Zaini; Henze, Mogens. IWA Publishing: London, UK.
CODEN: 69HJXK; ISBN: 1-84339-503-7
DOCUMENT TYPE: Conference
LANGUAGE: English

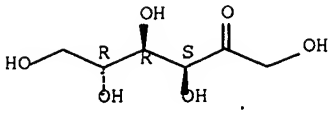
AB This work compared the performance of H2 fermentation between 2 anaerobic H2 fermentation bioreactors, one bioreactor operated at 35 ± 2°, the other at 55 ± 2°. The thermophilic anaerobic H2 fermentation (TAHF) bioreactor achieved a H2 yield 8.4 mmol H2/g COD larger than the 5.6 mmol H2/g COD of the mesophilic anaerobic H2 fermentation (MAHF) bioreactor. A specific H2- **producing** rate of 7.1 mmol H2/g volatile suspended solids [VSS]-h of the TAHF bioreactor exceeded the 5.8 mmol H2/g VSS-h of the MAHF. Electron flow recovery was 88.7% for the conversion of 1 g substrate in the TAHF bioreactor vs. 73.2% in the MAHF bioreactor. Acetate and butyrate predominated in the MAHF bioreactor; ethanol and acetate predominated in the TAHF. The thermophilic bioreactor achieved higher specific H2- **producing** rates and H2 yields.

IT **1333-74-0**, Hydrogen, processes
RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

IT **57-48-7P**, Fructose, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(wastewater from; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 60-1 (Waste Treatment and Disposal)
Section cross-reference(s): 10, 16, 17, 40

ST thermophilic anaerobic hydrogen fermn bioreactor performance; mesophilic anaerobic hydrogen fermn bioreactor performance; acrylic fiber **manuf** wastewater thermophilic anaerobic hydrogen fermn; fructose **manufg** wastewater mesophilic anaerobic hydrogen fermn

IT Wastewater
(acrylic fiber vs. fructose **manufacturing**; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Nutrients
(bacterial culture medium; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Peptones
RL: BCP (Biochemical process); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(bacterial substrate; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Wastewater treatment
(fermentation; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufg** . vs. fructose **manufacturing** wastewater)

IT Anaerobic bacteria
(mesophilic and thermophilic hydrogen-**producing**; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Chemical oxygen demand
Clostridium butyricum
Growth, microbial
Respiration, microbial
Thermoanaerobacterium thermosulfurigenes
(performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Bioreactors
(thermophilic vs. mesophilic fermentation; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT Fatty acids, processes
RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(volatile; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufg** . vs. fructose **manufacturing** wastewater)

IT Acrylic fibers, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(wastewater from; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber

manufacturing vs. fructose **manufacturing** wastewater)

IT 57-50-1, Sucrose, processes
RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(bacterial substrate; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT 50-99-7, Glucose, processes
RL: BCP (Biochemical process); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(bacterial substrate; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT 12408-02-5, Hydrogen ion, occurrence
RL: OCU (Occurrence, unclassified); OCCU (Occurrence)
(bioreactor; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

IT 64-17-5, Ethanol, processes 64-18-6, **Formic** acid, processes 64-19-7, Acetic acid, processes 79-09-4, Propionic acid, processes 107-92-6, Butyric acid, processes 124-38-9, Carbon dioxide, processes **1333-74-0**, Hydrogen, processes
RL: BCP (Biochemical process); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

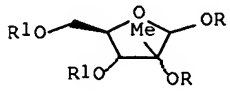
IT **57-48-7P**, Fructose, **preparation**
RL: IMF (Industrial manufacture); PREP (Preparation)
(wastewater from; performance of thermophilic vs. mesophilic anaerobic hydrogen fermentation in bioreactors fed acrylic fiber **manufacturing** vs. fructose **manufacturing** wastewater)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:652670 HCAPLUS Full-text
DOCUMENT NUMBER: 141:157383
TITLE: Process for the **preparation** of ribofuranose derivatives from 2-C-methyl-D-ribopentono-1,4-lactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides
INVENTOR(S): Tamerlani, Giancarlo; Salsini, Liana; Lombardi, Ilaria; Bartalucci, Debora; Cipolletti, Giovanni
PATENT ASSIGNEE(S): Inalco S.P.A., Italy
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004158059	A1	20040812	US 2003-447167	2003 0527
US 6891036	B2	20050510		
WO 2004069851	A1	20040819	WO 2004-EP1151	

2004
0209
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1631573 A1 20060308 EP 2004-709221
2004
0209
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK
CN 1747961 A 20060315 CN 2004-80003778
2004
0209
PRIORITY APPLN. INFO.: IT 2003-FI33 A
2003
0210
WO 2004-EP1151 W
2004
0209
OTHER SOURCE(S): CASREACT 141:157383; MARPAT 141:157383
GI



I

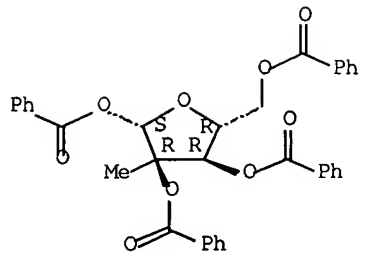
AB The present invention relates to a new process in 3 steps of regioselective acylation of 2-C-methyl-D-ribopentono-1,4-lactone, borohydride reduction, and anomeric acylation for the **preparation** of tetra-acyl ribofuranose derivs. I, wherein R and R1 are independently acyl groups chosen between C1-C6 alkanoyl and C7-C13 aroyl groups, useful as synthons in **synthesis** of nucleotides. Thus, regioselective benzoylation of 2-C-methyl-D-ribopentono-1,4-lactone with benzoyl chloride gave 3,5-di-O-benzoyl-2-C-methyl-D-ribopentono-1,4-lactone in 70 % yield. Reduction of 3,5-di-O-benzoyl-2-C-methyl-D-ribopentono-1,4- lactone with NaBH4 gave 3,5-di-O-benzoyl-2-C-methyl-D-ribofuranose in 75 % yield. Benzoylation of 3,5-di-O-benzoyl-2-C-methyl-D-ribofuranose gave title 1,2,3,5-tetra-O-benzoyl-2-C-methyl--D- ribofuranose in 70% yield.

IT **15397-15-6P**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)

RN 15397-15-6 HCAPLUS

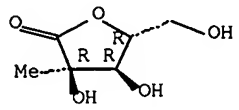
CN β-D-Ribofuranose, 2-C-methyl-, tetrabenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT **492-30-8**
RL: **RCT (Reactant)**; RACT (Reactant or reagent)
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)
RN 492-30-8 HCAPLUS
CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IC ICM C07H003-00
INCL 536124000; X53-611.0
CC 33-3 (Carbohydrates)
ST regioselective benzoylation methylribopentonolactone borohydride redn ribofuranose **prepn** nucleotide synthon; nucleotide synthon ribofuranose glycoside **prepn** borohydride redn methylribopentonolactone
IT Reduction
Synthons
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)
IT Nucleotides, **preparation**
RL: PNU (Preparation, unclassified); PREP (Preparation)
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)
IT Glycosides
RL: SPN (Synthetic preparation); PREP (Preparation)
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)
IT Benzoylation
(regioselective; process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)
IT 25137-77-3P 729596-46-7P 729596-47-8P 729596-48-9P 729596-49-0P 729596-50-3P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for **preparation** of ribofuranose derivs. from methylribopentonolactone via regioselective benzoylation and borohydride reduction as synthons for nucleotides)

IT **15397-15-6P** 729596-51-4P 729596-52-5P 729596-53-6P
729596-54-7P 729596-55-8P 729596-56-9P 729596-57-0P
729596-58-1P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation);
PREP (Preparation)
(process for **preparation** of ribofuranose derivs. from
methylribopentonolactone via regioselective benzoylation and
borohydride reduction as synthons for nucleotides)
IT 122-01-0, p-Chlorobenzoyl chloride **492-30-8** 874-60-2,
p-Toluoyl chloride
RL: **RCT (Reactant)**; RACT (Reactant or reagent)
(process for **preparation** of ribofuranose derivs. from
methylribopentonolactone via regioselective benzoylation and
borohydride reduction as synthons for nucleotides)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

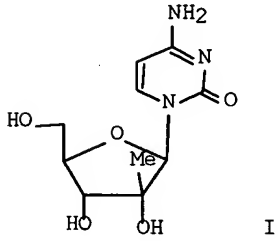
L82 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:515518 HCAPLUS Full-text
DOCUMENT NUMBER: 141:38814
TITLE: Process for the **production** of
2'-branched nucleosides
INVENTOR(S): Storer, Richard; Moussa, Adel; Chaudhuri,
Narayan; Waligora, Frank
PATENT ASSIGNEE(S): Idenix Cayman Limited, Cayman I.
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004052899	A2	20040624	WO 2003-US39643	2003 1212
WO 2004052899	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2509687	AA	20040624	CA 2003-2509687	2003 1212
AU 2003300901	A1	20040630	AU 2003-300901	2003 1212
US 2005020825	A1	20050127	US 2003-735408	2003 1212
EP 1585529	A2	20051019	EP 2003-812993	2003 1212
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

CN 1744903	A	20060308	CN 2003-80109576	2003 1212
JP 2006514993	T2	20060518	JP 2005-511773	2003 1212
NO 2005003115	A	20050818	NO 2005-3115	2005 0624
PRIORITY APPLN. INFO.:			US 2002-432766P	P 2002 1212
			US 2003-466194P	P 2003 0428
			WO 2003-US39643	W 2003 1212

OTHER SOURCE(S): CASREACT 141:38814

GI



I

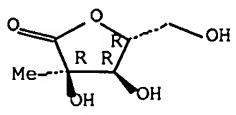
AB The present invention provides an improved process for **preparing** ss-D and ss-L 2'-C-methyl-nucleosides and 2'-C-methyl-3'-O-ester nucleosides, e.g. I, via glycosylation of methylribonolactone with nucleobases.

IT **492-30-8P 7392-74-7P 15397-15-6P 172722-75-7P**
RL: IMF (Industrial manufacture); **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

RN 492-30-8 HCAPLUS

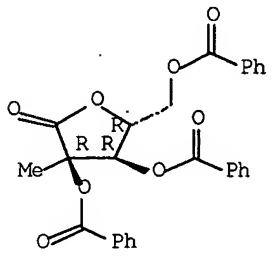
CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



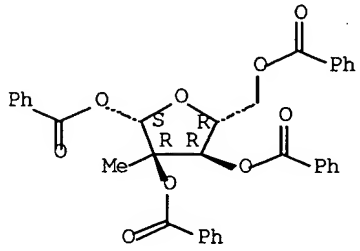
RN 7392-74-7 HCAPLUS
CN D-Ribonic acid, 2-C-methyl-, γ-lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



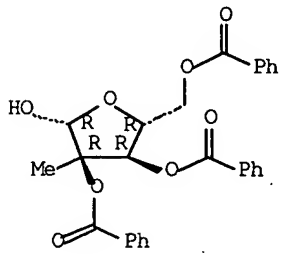
RN 15397-15-6 HCAPLUS
CN β-D-Ribofuranose, 2-C-methyl-, tetrabenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



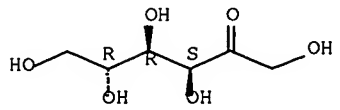
RN 172722-75-7 HCAPLUS
CN β-D-Ribofuranose, 2-C-methyl-, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **57-48-7**, D-Fructose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07H
CC 33-9 (Carbohydrates)
ST nucleoside **prepn** methylribonolactone glycosylation nucleobase
IT Glycosylation
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)
IT Nucleosides, **preparation**
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)
IT **492-30-8P 7392-74-7P 15397-15-6P**
20724-73-6P 23643-36-9P 31448-54-1P **172722-75-7P**
640725-69-5P 640725-70-8P 642075-42-1P 642075-43-2P
642075-44-3P
RL: IMF (Industrial manufacture); **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)
IT 640725-71-9P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)
IT **57-48-7**, D-Fructose, reactions 66-22-8, Uracil, reactions 71-30-7, Cytosine 72-18-4, L-Valine, reactions 75-77-4, Trimethylsilyl chloride, reactions 999-97-3, Hexamethyldisilazane 4637-24-5 10416-59-8, BSA 13734-41-3 18162-48-6, tert-Butyldimethylchlorosilane 58479-61-1, tert-Butyldiphenylchlorosilane 701295-32-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for **production** of 2'-branched nucleosides via glycosylation of methylribonolactone with nucleobases)

L82 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:20697 HCAPLUS Full-text
DOCUMENT NUMBER: 140:87662
TITLE: 2'- and 3'-nucleoside prodrugs for treating Flaviviridae infections
INVENTOR(S): Sommadossi, Jean-pierre; La Colla, Paolo; Storer, Richard; Gosselin, Gilles
PATENT ASSIGNEE(S): Idenix (Cayman) Limited, Cayman I.; Centre National de la Recherche Scientifique; Universita Degli Studi di Cagliari
SOURCE: PCT Int. Appl., 2498 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2004003000 A2 20040108 WO 2003-IB3901
2003
0627

WO 2004003000 A3 20041104
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KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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CA 2490200 AA 20040108 CA 2003-2490200
2003
0627

AU 2003263412 A1 20040119 AU 2003-263412
2003
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EP 1525209 A2 20050427 EP 2003-761749
2003
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EE, HU, SK

CN 1678621 A 20051005 CN 2003-820690
2003
0627

JP 2005537242 T2 20051208 JP 2004-517162
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CN 1761677 A 20060419 CN 2003-820501
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WO 2005020884 A2 20050310 WO 2004-US15395
2004
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WO 2005020884 A3 20060622
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MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1656093 A2 20060517 EP 2004-776022
2004
0514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, PL, SK, HR

NO 2005000466 A 20050323 NO 2005-466
2005
0127

PRIORITY APPLN. INFO.: US 2002-392350P P
2002
0628

US 2002-392351P	P	2002 0628
US 2003-466194P	P	2003 0428
US 2003-470949P	P	2003 0514
WO 2003-IB3901	W	2003 0627
WO 2004-US15395	W	2004 0514

OTHER SOURCE(S): MARPAT 140:87662

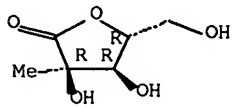
AB 2' And 3'-Prodrugs of 1'-, 2'-, 3'-, or 4'-branched β-D or β-L nucleosides, or their pharmaceutically acceptable salts and derivs., are described which are useful in the prevention and treatment of Flaviviridae infections and other related conditions. These modified nucleosides provide superior results against flaviviruses and pestiviruses, including hepatitis C virus and viruses generally that replicate through an RNA-dependent RNA reverse transcriptase. Compds., compns., methods and uses are provided for the treatment of Flaviviridae infection, including HCV infection, that include the administration of an effective amount of the prodrugs of the invention, or their pharmaceutically acceptable salts or derivs. These drugs may optionally be administered in combination or alternation with further antiviral agents to prevent or treat Flaviviridae infections and other related conditions. **Preparation** of compds. of the invention is included.

IT **492-30-8P 7392-74-7P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nucleoside prodrugs for treating Flaviviridae infections)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

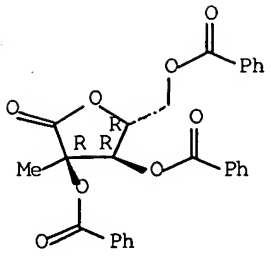
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

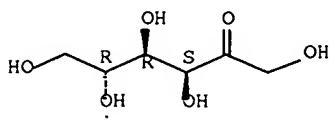
Absolute stereochemistry.



IC ICM C07H019-00
CC 1-5 (Pharmacology)
Section cross-reference(s): 33, 63
ST nucleoside prodrug **prepn** Flaviviridae infection treatment; hepatitis C virus infection treatment nucleoside prodrug
IT **492-30-8P** 4099-85-8P **7392-74-7P** 30361-17-2P
30361-19-4P 55797-67-6P 152540-75-5P 327614-69-7P
327614-72-2P 503543-43-9P 503543-44-0P 503543-45-1P
503543-46-2P 503543-47-3P 503543-49-5P 503543-50-8P
503543-51-9P 503543-55-3P 503806-04-0P 640725-69-5P
640725-70-8P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(nucleoside prodrugs for treating Flaviviridae infections)

L82 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:412197 HCAPLUS Full-text
DOCUMENT NUMBER: 121:12197
TITLE: Yields of chemicals from biomass-based fast pyrolysis oils
AUTHOR(S): Scott, Donald S.; Piskorz, Jan; Radlein, Desmond
CORPORATE SOURCE: Dep. Chem. Eng., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.
SOURCE: Energy from Biomass and Wastes (1993), 16, 797-809
CODEN: EBWADU; ISSN: 0277-7851
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The liquid **products** from the fast pyrolysis of poplar and spruce wood contain significant amts. of low mol. weight compds., especially carbonyls, with a considerable yield of hydroxyacetaldehyde being most noteworthy. Pretreatment of the wood before pyrolysis can drastically change the **product** selectivity. As an example, a dilute acid prehydrolysis to remove hemicelluloses allows the cellulose in wood to be depolymd. to anhydrosugars in good yields.
IT **57-48-7P**, Fructose, **preparation**
1333-74-0P, Hydrogen, **preparation**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(**formation** of, in pyrolysis of wood)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

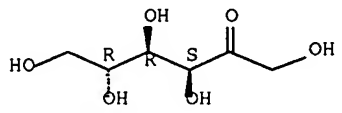
CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
Section cross-reference(s): 43
IT Charcoal
RL: PREP (Preparation)
(**production** of, from poplar and spruce)
IT 50-00-0P, Formaldehyde, **preparation** 50-99-7P, Glucose, **preparation** **57-48-7P**, Fructose, **preparation** 64-18-6P, **Formic** acid, **preparation** 64-19-7P, Acetic acid, **preparation** 67-56-1P, Methanol, **preparation** 74-82-8P, Methane, **preparation** 74-84-0P, Ethane, **preparation** 74-85-1P, Ethylene, **preparation** 75-07-0P, Acetaldehyde, **preparation** 78-98-8P, Methylglyoxal 98-01-1P, Furfural, **preparation** 107-21-1P, Ethylene glycol, **preparation** 107-22-2P, Glyoxal 116-09-6P, Acetol 124-38-9P, Carbon dioxide, **preparation** 141-46-8P, Hydroxyacetaldehyde 498-07-7P, Levoglucosan 630-08-0P, Carbon monoxide, **preparation** **1333-74-0P**, Hydrogen, **preparation** 7425-74-3P 26895-04-5P, Methylfurfural 35405-71-1P, Cellobiosan
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(**formation** of, in pyrolysis of wood)

L82 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:134959 HCAPLUS Full-text
DOCUMENT NUMBER: 120:134959
TITLE: **Preparation** and catalytic hydrogenolysis of some ω-haloalkyl β-D-fructopyranosides; a convenient route to simple alkyl β-D-fructopyranosides
AUTHOR(S): Raaijmakers, Harry W. C.; Eveleens, Susan M.; Arnouts, Esther G.; Zwanenburg, Binne; Chittenden, Gordon J. F.
CORPORATE SOURCE: NSR Cent. Mol. Struct. Des. Synth., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1993), 112(9), 511-14
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:134959
AB The acid-catalyzed reactions of D-fructose, sucrose and inulin with ω-haloalkyl alcs. yield the corresponding β-D-fructopyranosides. Catalytic hydrogenolysis of these glycosides provides a simple route to some crystalline alkyl β-D-fructopyranosides of potential biol. interest.
IT **1333-74-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenolysis, of ω-haloalkyl β-D-fructopyranosides)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

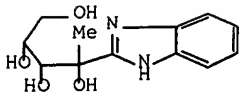
IT **57-48-7P**, D-Fructose, **preparation**
RL: SPN (Synthetic preparation); PREP (Preparation)
(reactant, in **preparation** of alkyl fructopyranoside)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 33-3 (Carbohydrates)
IT Glycosidation
(of ω-haloalkyl alcs. in **synthesis** of alkyl β-D-fructopyranosides)
IT Glycosides
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of alkyl β-D-fructopyranosides)
IT **1333-74-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenolysis, of ω-haloalkyl β-D-fructopyranosides)
IT 84543-36-2P 153228-57-0P 153228-58-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and catalytic hydrogenolysis of)
IT 604-68-2P 4208-77-9P 53422-38-1P 53431-77-9P 67884-27-9P 99042-47-4P 153228-56-9P 153228-59-2P 153228-60-5P 153228-61-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)
IT 627-30-5, 3-Chloro-1-propanol 928-51-8, 4-Chloro-1-butanol 9005-80-5, Inulin 15219-29-1 20880-92-6 25018-67-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant, in **preparation** of alkyl fructopyranoside)
IT **57-48-7P**, D-Fructose, **preparation** 57-50-1P, Sucrose, **preparation** 107-07-3P, 2-Chloroethanol, **preparation** 540-51-2P, 2-Bromoethanol
RL: SPN (Synthetic preparation); PREP (Preparation)
(reactant, in **preparation** of alkyl fructopyranoside)

L82 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:82362 HCAPLUS Full-text
DOCUMENT NUMBER: 114:82362
TITLE: **Synthesis** of α-D-glucosaccharinic acid derivatives
AUTHOR(S): Gakhokidze, R. A.; Sidamonidze, N. N.
CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR
SOURCE: Izvestiya Akademii Nauk Gruzinskoi SSR, Seriya Khimicheskaya (1990), 16(2), 115-20
CODEN: IGSKDH; ISSN: 0132-6074
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 114:82362
GI



I

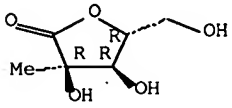
AB α-D-Glucosaccharinic acid was **prepared** from D-glucose via a stereoselective reaction with lead hydroxide to give the threo-isomer as its Ca salt which was easily converted to the 1,4-lactone. Addnl. obtained were the amide, hydrazide, benzmidazole I and acylated derivs.

IT **492-30-8P**
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and reactions of)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

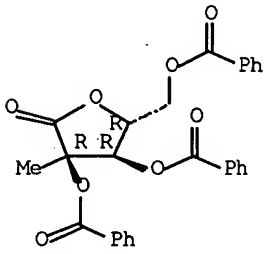


IT **7392-74-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)

RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 33-8 (Carbohydrates)
Section cross-reference(s): 28

IT Monosaccharides
RL: SPN (Synthetic preparation); PREP (Preparation)
(derivs., **preparation** of glucosaccharinic acid and its derivs.)

IT **492-30-8P** 96029-04-8P
RL: **RCT (Reactant)**; SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and reactions of)

IT **7392-74-7P** 23669-83-2P 108272-85-1P 131924-09-9P

131924-10-2P 131924-11-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)

L82 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:476599 HCAPLUS Full-text
DOCUMENT NUMBER: 113:76599
TITLE: Use and regeneration of reagents using coupled reactions and perm-selective barriers
INVENTOR(S): Van Eikeren, Paul
PATENT ASSIGNEE(S): Bend Research, Inc., USA
SOURCE: Eur. Pat. Appl., 83 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 349204	A2	19900103	EP 1989-306341	19890623
EP 349204	A3	19910807		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 02131586	A2	19900521	JP 1989-164066	19890628
PRIORITY APPLN. INFO.:			US 1988-212606 A	19880628

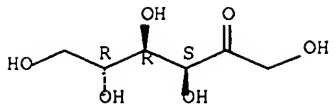
AB A method for using and regenerating expensive reactive group transfer reagents in apparatus containing 2 sections separated by a semipermeable membrane is claimed. Thus, D-glucose was oxidized to D-gluconic acid indirectly in an apparatus also containing KI. Glucose and KI solns. were placed in 1 section of the apparatus and NaClO solution in the other. I- passed through the semipermeable membrane and was oxidized to I2 by the NaClO. I2 diffused in the other direction, oxidizing glucose to gluconate in the 1st compartment while I- was regenerated.

IT **1333-74-0**, Hydrogen, biological studies
RL: RCT (Reactant); RACT (Reactant or reagent)
(in coupled synthetic reactions separated by semipermeable membrane)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

IT **57-48-7P**, D-Fructose, **preparation**
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(**manufacture** of, by coupled reactions separated by semipermeable membrane)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM B01J014-00
ICS C12P001-00
CC 16-1 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 9
IT Peptides, **preparation**
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(**manufacture** of, by coupled reactions separated by semipermeable membrane)
IT **Synthesis**
(bioorg., by coupled reactions separated by semipermeable membrane)
IT 50-70-4, D-Sorbitol, biological studies 50-99-7, Glucose, biological studies 53-57-6, NADPH 56-81-5, Glycerol, biological studies 57-56-7, Semicarbazide 57-60-3, Pyruvate, biological studies 58-64-0, Adenosine diphosphate, biological studies 58-68-4, NADH 58-86-6, Xylose, biological studies 67-63-0, 2-Propanol, biological studies 67-64-1, Acetone, biological studies 75-07-0, Acetaldehyde, biological studies 108-93-0, Cyclohexanol, biological studies 110-16-7, Maleic acid, biological studies 152-58-9, 11-Deoxycortisol 156-06-9, Phenylpyruvic acid 288-32-4, Imidazole, biological studies 328-50-7 374-01-6, 1,1,1-Trifluoro-2-propanol 684-16-2, Hexafluoroacetone 853-39-4, Decafluorobenzophenone 1192-62-7, 2-Acetylfuran 1313-82-2, Sodium sulfide, biological studies **1333-74-0**, Hydrogen, biological studies 2487-96-9D, polymers 7429-90-5, Aluminum, biological studies 7681-52-9, Sodium hypochlorite 7697-37-2, Nitric acid, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7775-09-9, Sodium chlorate 9027-42-3 9028-14-2, Glycerol dehydrogenase 9028-22-2, D-Sorbitol dehydrogenase 9028-36-8, D-Lactate dehydrogenase 9029-06-5, L-Alanine dehydrogenase 9029-12-3, Glutamate dehydrogenase 9029-66-7, Steroid 11-β-hydroxylase 9031-72-5, Alcohol dehydrogenase 10457-99-5, 3-Dehydrocarnitine 10588-01-9 15681-89-7, Sodium borodeuteride 15753-50-1 16721-80-5, Sodium bisulfide 16940-66-2 20312-36-1 20461-54-5, Iodide, biological studies 20816-12-0, Osmium tetroxide 70599-31-4 95829-40-6, Xylose reductase
RL: RCT (Reactant); RACT (Reactant or reagent)
(in coupled synthetic reactions separated by semipermeable membrane)
IT 50-21-5P, D,L-Lactic acid, **preparation** 50-23-7P 56-41-7P, L-Alanine, **preparation** 56-65-5P, Adenosine triphosphate, **preparation** 56-86-0P, L-Glutamic acid, **preparation** **57-48-7P**, D-Fructose, **preparation** 63-91-2P, Phenylalanine, **preparation** 87-69-4P, **preparation** 87-99-0P, Xylitol 96-26-4P, Dihydroxyacetone 526-95-4P, D-Gluconic acid 541-15-1P, L-Carnitine 1624-36-8P, Ethan-1-d-ol 1859-09-2P, Ethan-1,1-d2-ol 6939-71-5P 112653-32-4P
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(**manufacture** of, by coupled reactions separated by semipermeable membrane)

L82 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:156740 HCAPLUS Full-text
DOCUMENT NUMBER: 112:156740
TITLE: **Production** of unsaturated fatty

acids or hydrocarbons by Rhodococcus
INVENTOR(S): Itoh, Susumu; Koike, Kenzo; Takaiwa, Mikio
PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 319123	A2	19890607	EP 1988-308091	19880901
EP 319123	A3	19900801		
EP 319123	B1	19950517		
R: BE, CH, DE, FR, GB, LI, NL, SE				
JP 01144982	A2	19890607	JP 1987-300057	19871130
JP 04012718	B4	19920305		
JP 01144983	A2	19890607	JP 1987-300058	19871130
JP 02008715	B4	19900226		

PRIORITY APPLN. INFO.: JP 1987-300057 A 19871130
JP 1987-300058 A 19871130

OTHER SOURCE(S): MARPAT 112:156740

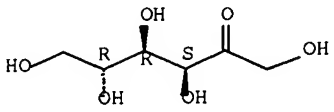
AB A process is developed for converting a fatty acid or hydrocarbon into the corresponding unsatd. fatty acid or hydrocarbon by Rhodococcus, the unsatd. compound subsequently being excreted into the culture medium. Unsatd. fatty acids are used in perfumes, drugs, coatings, surfactants, and cosmetics, while unsatd. hydrocarbons are used in pheromones, perfumes, and drugs. Thus, 1 g of cells of Rhodococcus KSM-B-3M was suspended in 20 mL of a 0.25M phosphate buffer (pH 7.0) containing 1% monosodium glutamate, 0.1% thiamine. HCl, and 0.1% MgSO4. Then 4 mL of Pr hexadecanoate was added thereto, and the resulting mixture was allowed to react at 26° for 2 days under shaking. After completion of the reaction, it was determined that the major **product formed** was Pr cis-6-hexadecenoate.

IT **1333-74-0**
RL: BIOL (Biological study)
(dehydrogenation, of fatty acids and hydrocarbons, with Rhodococcus)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

IT **57-48-7P**, Fructose, **preparation**
RL: PREP (Preparation)
(**manufacture** of unsatd. fatty acid or hydrocarbon with Rhodococcus in medium containing)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C12P007-64 .
ICS C12P005-02; C12P007-04; C12P013-00
CC 16-5 (Fermentation and Bioindustrial Chemistry)
ST Rhodococcus **manuf** unsatd fatty acid hydrocarbon
IT Coating materials
Cosmetics
Surfactants
(**manufacture** of, unsatd. fatty acids for, microbial **manufacture** of)
IT Perfumes and Essences
Pharmaceuticals
(**manufacture** of, unsatd. fatty acids or hydrocarbons for, microbial **manufacture** of)
IT Rhodococcus
(unsatd. fatty acids and hydrocarbons **manufacture** with)
IT Plant hormones and regulators
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(pheromones, **manufacture** of, microbial, unsatd. hydrocarbons for)
IT Fatty acids, biological studies
Hydrocarbons, biological studies
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(unsatd., **manufacture** of, with Rhodococcus)
IT **1333-74-0**
RL: BIOL (Biological study)
(dehydrogenation, of fatty acids and hydrocarbons, with Rhodococcus)
IT 147-81-9, Arabinose 147-85-3, Proline, **preparation** 3615-41-6, Rhamnose 50-70-4P, Sorbitol, **preparation** 50-99-7P, Glucose, **preparation** 56-40-6P, Glycine, **preparation** 56-84-8P, Aspartic acid, **preparation** 56-86-0P, Glutamic acid, **preparation** **57-48-7P**, Fructose, **preparation** 58-86-6P, Xylose, **preparation** 59-43-8P, Thiamine, **preparation** 60-18-4P, Tyrosine, **preparation** 64-19-7P, Acetic acid, **preparation** 69-65-8P, Mannitol 72-19-5P, Threonine, **preparation** 73-32-5P, Isoleucine, **preparation** 77-92-9P, **preparation** 87-89-8P, Inositol 110-15-6P, Butanedioic acid, **preparation** 7487-88-9P, Magnesium sulfate, **preparation** 7785-87-7P, Manganese sulfate
RL: BIOL (Biological study)
(**manufacture** of unsatd. fatty acid or hydrocarbon with Rhodococcus in medium containing)
IT 1120-25-8P 1779-13-1P, cis-9-Octadecene 7239-23-8P 16507-61-2P 25447-84-1P, Tetradeca-di-ene 28929-03-5P, Octadeca-di-ene 37822-83-6P, Hexadecenol 41446-62-2P, cis-5-Tetradecene 54264-03-8P, Hexadeca-di-ene 59004-73-8P 62706-20-1P 63541-46-8P 121749-28-8P 126171-75-3P 126171-76-4P 126171-77-5P 126171-78-6P 126171-79-7P 126171-80-0P 126207-57-6P 126207-58-7P, Heptadecenenitrile
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(**manufacture** of, with Rhodococcus)

L82 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:554300 HCAPLUS Full-text
DOCUMENT NUMBER: 111:154300
TITLE: **Preparation** of D-mannitol by isomerization and hydrogenation of D-glucose
INVENTOR(S): Komiyama, Shinji; Takizawa, Satoshi; Yano, Shigenobu
PATENT ASSIGNEE(S): DIC Hercules, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

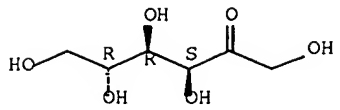
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63258437	A2	19881025	JP 1987-90913	1987 0415
JP 07037401	B4	19950426		
PRIORITY APPLN. INFO.:			JP 1987-90913	1987 0415

OTHER SOURCE(S): MARPAT 111:154300
AB A process for **preparing** D-mannitol (I) involves isomerization of D-glucose (II) by heating a solution of II in the presence of an amine or its derivative NR1R2R3 (R1,R2,R3 = H, C1-18 alkyl, hydroxyalkyl, alkoxyalkyl, arylalkyl) and a salt of a metal selected from Ca, Sr, La, Ni, Ce, Co, Pr, Nd, Y, and In to give a sugar solution containing II, D-mannose (III), and D-fructose (IV), high pressure hydrogenation of the solution in the presence of a hydrogenation catalyst to give I and D-sorbitol (V), and separation of I. A solution of 40.8 $CaCl_2 \cdot 2H_2O$ and 50.0 D-glucose in 200 g MeOH was heated 10 min at 53° in the presence of 24.3 g Et_2N to give a sugar solution containing 35.0 D-mannose, 42.9 D-fructose, and 15.1% D-glucose. Et_2N was distilled in vacuo and the residue was adjusted to pH 7.8 and a total weight of 500 g with H_2O and concentrated HCl and placed in an autoclave. Raney Ni (3 g) was added and the mixture was subjected to reduction at 115° and H 60 kg/cm2 for 90 min to give, after coding and removing the catalyst, a clear and colorless filtrate containing 60.0 I and 30.2% V. The filtrate was adjusted to pH 6.5 by concentrated HCl and desalted by electrodialysis to give a solution containing 5 ppm Ca^{2+} with no $Et_2N \cdot HCl$ detected which was concentrated and cooled to give 26 g I.
IT **1333-74-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation, of glucose isomerization **products**, in **preparation** of mannitol)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

IT **57-48-7P**, D-Fructose, reactions
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and hydrogenation of, in **preparation** of mannitol and sorbitol)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IC ICM C07C031-26
ICS C07C029-132
ICA B01D013-02
CC 33-6 (Carbohydrates)
IT Isomerization catalysts
(amines or derivs containing metal halides, for conversion of glucose into mannose and fructose in **preparation** of mannitol)
IT Isomerization
(of glucose into mannose and fructose in **preparation** of mannitol)
IT Hydrogenation
(of glucose isomerization **products**, in **prepn** . of mannitol)
IT 7440-02-0, Raney nickel, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for hydrogenation of mannose and fructose mixture, in **preparation** of mannitol)
IT **1333-74-0**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation, of glucose isomerization **products**, in **preparation** of mannitol)
IT 50-99-7, D-Glucose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(isomerization of, into mannose and fructose, in **prepn** . of mannitol and sorbitol)
IT 3458-28-4P, D-Mannose
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and hydrogenation of, in **preparation** of mannitol)
IT **57-48-7P**, D-Fructose, reactions
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**preparation** and hydrogenation of, in **preparation** of mannitol and sorbitol)
IT 50-70-4P, D-Sorbitol, **preparation** 69-65-8P, D-Mannitol
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of, by isomerization and hydrogenation of glucose)

L82 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:463142 HCAPLUS Full-text
DOCUMENT NUMBER: 109:63142
TITLE: Electrocatalytic oxidation of glucose at platinum in alkaline medium: On the role of temperature
AUTHOR(S): Yei, L. H. Essis; Beden, B.; Lamy, C.
CORPORATE SOURCE: Lab. Chim. 1, Univ. Poitiers, Poitiers, 86022, Fr.
SOURCE: Journal of Electroanalytical Chemistry and Interfacial Electrochemistry (1988), 246(2), 349-62
CODEN: JEIEBC; ISSN: 0022-0728
DOCUMENT TYPE: Journal
LANGUAGE: English

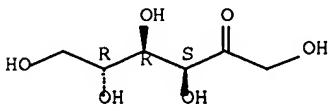
AB The electrocatalytic oxidation of glucose at Pt in alkaline medium was studied using electrochem. chromatog. and polarimetric techniques. The expts. lead to the conclusion that the particular reactivity of glucose at low temperature is due to the release of the H belonging to the hemiacetal group. However, no evidence for a difference of reactivity between the 2 anomers, α and β, was found. The anomalous temperature behavior of the glucose electrooxidn. was interpreted in terms of the slow transformation process of glucose into fructose. Such an inhibiting effect can be reduced greatly by lowering the temperature

IT **57-48-7P**, Fructose, **preparation**
RL: PREP (Preparation)
(by transformation of glucose, electrocatalytic oxidation at platinum and alkaline medium in relation to)

RN 57-48-7 HCAPLUS

CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **1333-74-0P**, Hydrogen, **preparation**
RL: PREP (Preparation)
(evolution of, in electrochem. oxidation of glucose on platinum electrode in alkaline solution for)

RN 1333-74-0 HCAPLUS

CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

CC 72-2 (Electrochemistry)
Section cross-reference(s): 22, 33

IT Isomerization
(of glucose, fructose **formation** in, electrochem. oxidation in relation to)

IT **57-48-7P**, Fructose, **preparation**
RL: PREP (Preparation)
(by transformation of glucose, electrocatalytic oxidation at platinum and alkaline medium in relation to)

IT **1333-74-0P**, Hydrogen, **preparation**
RL: PREP (Preparation)
(evolution of, in electrochem. oxidation of glucose on platinum electrode in alkaline solution for)

IT 67-47-0P
RL: PREP (Preparation)
(**preparation** of, during electrochem. oxidation of glucose of platinum electrode in alkaline solns.)

L82 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:425941 HCAPLUS Full-text

DOCUMENT NUMBER: 107:25941

TITLE: The composition of oils obtained by the fast pyrolysis of different woods

AUTHOR(S): Piskorz, J.; Scott, D. S.

CORPORATE SOURCE: Dep. Chem. Eng., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.

SOURCE: Preprints of Papers - American Chemical Society, Division of Fuel Chemistry (1987),

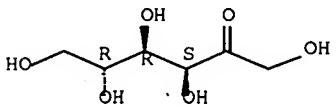
32(2), 215-22
CODEN: ACFPAI; ISSN: 0569-3772
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A single-phase homogeneous **product** containing 15-25% water was obtained by fast pyrolysis of 4 different woods. The **product** is a complex mixture of chems. and has potential as substitute fuel oil. The water-insol. fraction of the **product** is derived from lignin, and the water-soluble fraction originates from carbohydrates. The major classes of chems. differentiated in the **product** are sugars and anhydrosugars, carbonyl and hydroxycarbonyl compds., acids (HCO2H and AcOH), and pyrolytic lignin.

IT **57-48-7P**, Fructose, **preparation**
1333-74-0P, Hydrogen, **preparation**
RL: PREP (Preparation)
(**formation** of, in wood pyrolysis)

RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

CC 52-1 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 43, 44, 45

IT Charcoal
Oligosaccharides
RL: PREP (Preparation)
(**formation** of, in wood pyrolysis)

IT Poplar
Wood
(pyrolysis of, **product** yields in)

IT Hydrocarbons, **preparation**
RL: PREP (Preparation)
(C3-4, **formation** of, in wood pyrolysis)

IT Carbohydrates and Sugars, **preparation**
RL: PREP (Preparation)
(anhydro, **formation** of, in wood pyrolysis)

IT Fuel gas **manufacturing**
(pyrolysis, of wood, **product** yields in, wood type in relation to)

IT Maple
(A. rubrum, pyrolysis of, **product** yields in)

IT Spruce
(P. glauca, pyrolysis of, **product** yields in)

IT 50-00-0P, Formaldehyde, **preparation** 50-99-7P, Glucose, **preparation** **57-48-7P**, Fructose, **preparation** 64-18-6P, **Formic** acid, **preparation** 64-19-7P, Acetic acid, **preparation** 67-56-1P, Methanol, **preparation** 74-82-8P, Methane, **preparation** 74-84-0P, Ethane, **preparation** 74-85-1P, Ethylene, **preparation** 75-07-0P, Acetaldehyde, **preparation** 78-98-8P, Methylglyoxal

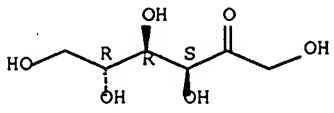
107-21-1P, Ethylene glycol, **preparation** 107-22-2P, Glyoxal 116-09-6P, Acetol 124-38-9P, Carbon dioxide, **preparation** 141-46-8P, Hydroxyacetaldehyde 498-07-7P, Levoglucosan 630-08-0P, Carbon monoxide, **preparation** **1333-74-0P**, Hydrogen, **preparation** 7425-74-3P 9005-53-2DP, Lignin, pyrolyzed 35405-71-1P
RL: PREP (Preparation)
(**formation** of, in wood pyrolysis)

L82 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1976:455872 HCAPLUS Full-text
DOCUMENT NUMBER: 85:55872
TITLE: Hydrogen evolving systems. 1. The **formation** of molecular hydrogen from aqueous suspensions of iron(II) hydroxide and reactions with reducible substrates, including molecular nitrogen
AUTHOR(S): Schrauzer, G. N.; Guth, T. D.
CORPORATE SOURCE: Revelle Coll., Univ. California, La Jolla, CA, USA
SOURCE: Journal of the American Chemical Society (1976), 98(12), 3508-13
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The evolution of H from mildly alkaline suspensions of Fe(OH)2 appears to involve elemental Fe as the intermediate, which is **generated** by way of a base-induced disproportionation of Fe(OH)2. The disproportionation reaction also occurs in strongly alkaline suspensions of Fe(OH)2; under these conditions H2 is not **formed** and elemental Fe accumulates in the ppts. instead. Disordered modifications of Fe(OH)2 seem to exist which undergo disproportionation preferentially. The reactive modifications of Fe(OH)2 are **formed** in higher relative concns. or are stabilized by weak complexing or dispersing agents such as sugars and polyhydric alcs., as well as to some extent by Mg(OH)2 or glycine. The disproportionation of Fe(OH)2 is significantly stimulated by uv light as evidenced by the increased yields of H2 in uv-light exposed samples. The evolution of H2 is also stimulated by copptn. of Fe(OH)2 with Ni(OH)2. A variety of reducible substrates, e.g., C2H2, C2H4, CO, and N2, act as inhibitors of H2 **formation**. Reduction of these substrates occurs in a manner typical of reactions with highly dispersed elemental Fe. With mol. N, hydrazine and NH3 are **formed** ; both **products** were identified by specific colorimetric tests as well as by using 30N2-enriched N as the substrate and subsequent mass-spectrographic anal.

IT **57-48-7P**, uses and miscellaneous
RL: PREP (Preparation); USES (Uses)
(effects on hydrogen **formation** from alkaline suspensions of ferrous hydroxide)
RN 57-48-7 HCAPLUS
CN D-Fructose (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **1333-74-0P, preparation**
RL: PREP (Preparation)
(from alkaline suspensions of ferrous hydroxide)
RN 1333-74-0 HCAPLUS
CN Hydrogen (8CI, 9CI) (CA INDEX NAME)

H—H

CC 78-1 (Inorganic Chemicals and Reactions)
ST hydrogen **formation** iron hydroxide disproportionation; UV iron hydroxide disproportionation; nitrogen redn iron hydroxide
IT Ultraviolet light, chemical and physical effects
(on hydrogen **formation** from ferrous hydroxide disproportionation)
IT 1309-42-8P 12054-48-7P 13327-32-7P 18933-05-6P 21645-51-2P 50-99-7P, uses and miscellaneous 56-40-6P, uses and miscellaneous 56-81-5P, uses and miscellaneous **57-48-7P**, uses and miscellaneous 57-50-1P, uses and miscellaneous 107-21-1P, uses and miscellaneous
RL: PREP (Preparation)
(effects on hydrogen **formation** from alkaline suspensions of ferrous hydroxide)
IT 74-85-1P, uses and miscellaneous 74-86-2P, uses and miscellaneous 74-88-4P 75-03-6P 630-08-0P, uses and miscellaneous 10024-97-2P, uses and miscellaneous
RL: PREP (Preparation); USES (Uses)
(effects on hydrogen **formation** from ferrous hydroxide-glucose suspensions)
IT 7439-89-6P, **preparation**
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(**formation** of, in base-induced disproportionation of ferrous hydroxide)
IT **1333-74-0P, preparation**
RL: PREP (Preparation)
(from alkaline suspensions of ferrous hydroxide)
IT 18624-44-7P
RL: PREP (Preparation)
(hydrogen **formation** from alkaline suspensions of)

L82 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1969:97108 HCAPLUS Full-text
DOCUMENT NUMBER: 70:97108
TITLE: Nucleic acid components and their analogs. CXX. 2-C-Methyl-D-ribose and its derivatives
AUTHOR(S): Novak, Jiri; Sorm, Frantisek
CORPORATE SOURCE: Ceskoslov. Akad. Ved, Prague, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications (1969), 34(3), 857-66
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A mixture of 5 ml. Ac2O and 15 ml. C5H5N treated with ice-cooling with 1.4 g. 2-C-methyl-D-ribonolactone (I) in 15 ml. C5H5N, the whole kept at room temperature overnight, poured onto ice, and extracted with CHCl3 gave 1.75 g. I 2,3,5-triacetate, b0.01 120° (bath temperature), [α]2D0 146.5° (c 0.51, EtOH). A solution of 1.6 g. I in 5 ml. C5H5N added to a mixture **prepared** at 0° from 4.3 g. BzCl and 15 ml. C5H5N, the whole kept at room temperature overnight, heated to 80° 1 hr., diluted with 1 ml. MeOH, evaporated, and extracted with CHCl3 gave 3.8 g. I 2,3,5-tribenzoate, m. 139-40° (MeOH) (sublimation), [α]2D0 122.5° (c 0.507, CHCl3). A suspension of 0.8 g. I, 10 ml. anhydrous Me2CO, 1 ml. HC(OEt)3, and 0.05 ml. 20% ethanolic HCl shaken at room temperature 8 hrs. and neutralized with Ag2CO3 gave 0.86 g. I 2,3-O-isopropylidene derivative, b0.05 120° (bath temperature), m. 57-8° (sublimation), [α]2D0 -44.0° (c 0.54, EtOH). A stirred mixture of 15 g. I, 500 ml. 0.001N H2SO4, and 1500 ml. Dowex 50 (H+) ion-exchange resin treated in one lot with 1000 g. 2.5% Na amalgam (the temperature rose spontaneously to 40°), the whole kept 1 hr., filtered, and the filtrate passed through a column of Dowex 1 (HCO3-) ion-exchange resin gave 11 g. 2-C-methyl-D-ribose (II), m. 93-5° (iso-PrOH), [α]2D0 -23.6° (after 15 min.) (c 0.622, H2O); II N-benzyl-N-phenylhydrazone m. 169-72° (MeOH), [α]2D0 6.3° (c 0.207, EtOH). II was **prepared** also by reduction of I with aqueous NaBH4. A mixture of 2 g. II, 100 ml.

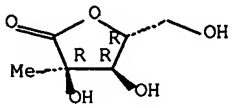
MeOH, and 5 ml. 20% methanolic HCl refluxed 5 hrs., and neutralized with Dowex 1 (OH-) ion-exchange resin gave 1.2 g. Me 2-C-methyl-β-D-ribofuranoside (III), m. 109° (MeOH), [α]2D0 -82.1° (c 0.504, EtOH). Aqueous III refluxed with Dowex 50 (H+) ion-exchange resin gave II. A suspension of 0.9 g. III, 10 ml. Me2CO, 1 ml. HC(OEt)3, and 3 drops 20% methanolic HCl shaken at room temperature overnight and neutralized with Ag2CO3 gave 0.9 g. III 2,3-O-iso-propylidene derivative, b0.05 60° (bath temperature), [α]2D0 -84.0° (c 0.512, EtOH). A solution of 0.5 g. III in 5 ml. C5H5N added dropwise at 0° to a mixture of 10 ml. C5H5N and 3 ml. Ac2O, the whole poured onto ice, and extracted with CHCl3 gave 0.2 g. III 3,5-diacetate, b0.01 120-5° (bath temperature), [α]2D0 -43.6° (c 0.559, EtOH). The preceding reaction mixture refluxed 5 hrs. gave 0.7 g. III 2,3,5-triacetate (IV), m. 60° (sublimation), [α]2D0 -9.8° (c 0.48, EtOH). A solution of III in C5H5N treated at 0° with BzCl and the whole refluxed 5 hrs. gave 65% III 3,5-dibenzoate, b0.01 180-5° (bath temperature), [α]2D0 - 19.9° (c 0.619, EtOH). The attempted **preparation** of III tribenzoate failed even under forced conditions. A solution of IV in MePh saturated at 0° with dry HBr, the mixture kept 8 hrs. at 0° and evaporated, the residue dissolved in dioxane, and the solution shaken with Ag2CO3 gave syrupy 3,5-di-O-acetyl-2-C-methyl-D-ribose and a syrupy mixture of anomeric 2,3,5-tri-O-acetyl-2-C-methyl-D- ribofuranoses. A mixture of 14 ml. Ac2O and 1.6 g. 70% aqueous HClO4 treated at 0° with 1.5 g. IV in 5 ml. AcOH, the whole heated at 60° 2 hrs., treated at 20° with 1 g. NaOAc in 15 ml. AcOH, poured onto ice, and extracted with CHCl3 gave 0.4 g. 1,2,3,5-tetra-O-acetyl-2-C-methyl-β-D-ribofuranose (V), m. 156° (sublimation), [α]2D0 -18.8° (c 0.499, EtOH). Similarly, 0.9 g. III gave 0.31 g. V. A suspension of 1.6 g. II in 5 ml. PhCH2OH saturated with dry HCl gave 0.4 g. benzyl 2-C-methyl-β-D-furanoside (VI), m. 99-100° (MeOH), [α]2D0 -187° (c 0.454, EtOH), and 0.15 g. of the α-D anomer, m. 125° (C6H6), [α]2D0 -108.2° (c 0.338, EtOH). A mixture of 0.5 g. VI, 5 ml. C5H5N, and 2 ml. Ac2O refluxed 6 hrs. gave 0.59 g. benzyl 2,3,5-tri-O-acetyl-2-C-methyl-β-D-ribofuranoside, m. 112° (cyclohexane), [α]2D0 -75.3° (c 0.503, EtOH), the hydrogenolysis of which in EtOH over 10% Pd on C followed by acetylation with Ac2O in C5H5N yielded 70% V. Acetylation of 0.16 g. II in AcOH with Ac2O, and 70% aqueous HClO4 gave 0.04 g. V. A mixture of II, Ac2O, and C5H5N refluxed 5 hrs. gave 0.1 g. V. Treatment of II with PhCH2OCOCl gave 31% 2-C-methyl-D-ribofuranose 2,3-carbonate (VII) 1,5-di-O- benzyloxycarbonyl derivative, m. 88° (Et2O), [α]2D0 -50.3° (c 0.280, EtOH), the hydrogenolysis of which in MeOH over prereduced PdCl2 yielded 87% VII, m. 113° (EtOAc).

IT **492-30-8P 7392-74-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)

RN 492-30-8 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

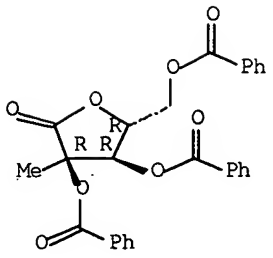
Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS

CN D-Ribonic acid, 2-C-methyl-, γ-lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



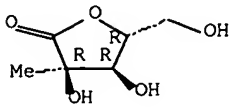
CC 33 (Carbohydrates)
IT 251-34-3DP, Furo[3,4-d]-1,3-dioxole, sugar derivs.
492-30-8P 7392-74-7P 23661-04-3P 23661-05-4P
23669-83-2P 23669-84-3P 23669-85-4P 23669-86-5P
23669-87-6P 23669-88-7P 23669-89-8P 23669-90-1P
23669-91-2P 23669-92-3P 23669-93-4P 23669-94-5P
23669-95-6P 23707-14-4P 23709-41-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**preparation** of)

L82 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:84833 HCAPLUS Full-text
DOCUMENT NUMBER: 64:84833
ORIGINAL REFERENCE NO.: 64:15965h,15966a-c
TITLE: D-Glucosaccharinic acids
AUTHOR(S): Feast, Alan A. J.; Lindberg, Bengt; Theander, Olof
CORPORATE SOURCE: Svenska Traeforskningsinst., Stockholm
SOURCE: Acta Chemica Scandinavica (1965), 19(5), 1127-34
CODEN: ACHSE7; ISSN: 0904-213X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Alkaline degradation of 4-O-methyl-D-glucose (I), maltose (II), lactose (III), or guaran (IV) gave approx. equal amts. of α-(V) and β-D-glucoisosaccharinic acid (VI). The Ca salt of V, obtained from III, was converted to α-D-glucoisosaccharino-1,4-lactone (VII), m. 94-5°, [α]22D 62.7° (c 0.9, H2O). Benzoylation of the mother liquors obtained from Ca(OH)2 treatment of III gave tri-O-benzoyl-α-D-glucoisosaccharino-1,4-lactone (VIII), m. 120.5-1.5°, [α]22D 46.6° (c 1, CHCl3), and tri-O-benzoyl-β-D-glucoisaccharino-1,4-lactone (IX), m. 113.5-14.5° (MeOH), [α]22D 42.5° (c 1, CHCl3). Debenzoylation of IX gave sirupy β-D-glucoisosaccharino-1,4- lactone (X), [α]22D 28° (c 1, H2O). -VII and X were reduced by NaBH4 to the corresponding reducing sugars XI, [α]22D -22° (c 1, H2O), and XII, [α]22D 3° (c 0.8, H2O), and 3-deoxy-4-C-hydroxymethyl-D-glycero- pentitol (XIII), [α]22D -12° (c 0.5, H2O). α-D-Glucosaccharino-1,4-lactone (XIV) was prepared from D-fructose (XV) or 1-O-benzyl-D-fructose (XVI) but no β-epimer was formed. XIV was benzoylated to tri-O-benzoyl-α-D-glucosaccharino-1,4-lactone (XVII), m. 141.5-42° (EtOH), [α]22D 124.6° (c 1, CHCl3). β-L-Glucosaccharino-1,4-lactone (XVIII), [α]23D -106° (c 0.6, H2O), was prepared by Br oxidation of 2-C-methyl-L-arabinose (XIX). XIV was reduced by Na-Hg to 2-C-methyl-D-ribose (XX), [α]23D 12° (c 0.9, H2O), characterized as the p-toluenesulfonylhydrazone (XXI), m. 169.5-70° (EtOH), [α]22D 1.8° (c 0.5, C5H5N). The 1,4-lactones of the six saccharinic acids were separated by gas-liquid chromatography of the trimethylsilyl ethers; this method appears to be of general value.

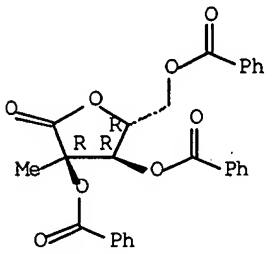
IT **492-30-8**, D-ribo-Pentonic acid, 2-C-methyl-, γ-lactone **7392-74-7**, D-ribo-Pentonic acid, 2-C-methyl-, γ-lactone, tribenzoate
(**preparation** of)
RN 492-30-8 HCAPLUS
CN D-Ribonic acid, 2-C-methyl-, γ-lactone (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 7392-74-7 HCAPLUS
CN D-Ribonic acid, 2-C-methyl-, γ-lactone, 2,3,5-tribenzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 43 (Carbohydrates)
IT 104-15-4, p-Toluenesulfonic acid, hydrazide hydrazones, with 2-C-methyl-D-ribose **492-30-8**, D-ribo-Pentonic acid, 2-C-methyl-, γ-lactone 7306-54-9, D-glycero-Pentitol, 3-deoxy-2-C-(hydroxymethyl)- 7306-56-1, L-arabino-Pentonic acid, 2-C-methyl-, γ-lactone 7306-57-2, Ribose, 2-C-methyl-, (p-tolylsulfonyl)hydrazone, D- **7392-74-7**, D-ribo-Pentonic acid, 2-C-methyl-, γ-lactone, tribenzoate 886749-47-9, Glucoisosaccharinic acid, γ-lactone, "β"-D- 886749-47-9, Glucoisosaccharinic acid, γ-lactone, "β"-D-
(**preparation** of)

=> ? show files
File 6:NTIS 1964-2006/Sep W4
(c) 2006 NTIS, Intl Cpyrght All Rights Res
File 5:Biosis Previews(R) 1969-2006/Sep W4
(c) 2006 The Thomson Corporation
File 8:Ei Compendex(R) 1970-2006/Sep W4
(c) 2006 Elsevier Eng. Info. Inc.
File 24:CSA Life Sciences Abstracts 1966-2006/Aug
(c) 2006 CSA.
File 35:Dissertation Abs Online 1861-2006/Sep
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File 94:JICST-EPlus 1985-2006/Jun W4
(c)2006 Japan Science and Tech Corp(JST)
File 95:TEME-Technology & Management 1989-2006/Oct W1
(c) 2006 FIZ TECHNIK
File 144:Pascal 1973-2006/Sep W2

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         (c) 2006 INIST/CNRS
File 155:MEDLINE(R) 1950-2006/Oct 03
         (c) format only 2006 Dialog
File 315:ChemEng & Biotec Abs 1970-2006/Aug
         (c) 2006 DECHEMA
File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)
         (c) 2006 JPO & JAPIO
File 391:Beilstein Reactions 2006/Q3
         (c) 2006 Beilstein GmbH
File 399:CA SEARCH(R) 1967-2006/UD=14514
         (c) 2006 American Chemical Society
File 350:Derwent WPIX 1963-2006/UD=200662
         (c) 2006 The Thomson Corporation
? ds

Set     Items   Description
S1        655   AU=STORER R?
S2        507   AU=MOUSSA A?
S3        301   AU=CHAUDHURI N?
S4          7   AU=WALIGORA F?
S5          3   S1 AND S2 AND S3 AND S4
S6         12   S1 AND (S2 OR S3 OR S4)
S7         12   S2 AND (S1 OR S3 OR S4)
S8          4   S3 AND (S1 OR S2 OR S4)
S9          3   S4 AND (S1 OR S2 OR S3)
S10        16   S4:S9
S11    322277   NUCLEOSID? OR RIBOFURAN?
S12  56965763   PRODUC? OR PROD? ? OR GENERAT? OR MANUF? OR MFR? OR CREAT?
             OR FORM?? OR FORMING? OR FORMAT? OR MAKE? ? OR MADE? ? OR MAK-
             ING? OR FABRICAT? OR SYNTHESI? OR PREPAR? OR PREP? ?
S13    216776   S11 AND S12
S14        78   (S1 OR S2 OR S3 OR S4) AND S13
S15        86   S14 OR S10
S16        64   RD S15  (unique items)
S17        13   S10 AND S16
S18        51   S16 NOT S17
? t s17/3,de/all

 17/3,DE/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2006 The Thomson Corporation. All rts. reserv.

0015680384   BIOSIS NO.: 200600025779
NM 283, an efficient prodrug of the potent anti-HCV agent 2
  '-C-methylcytidine
AUTHOR: Pierra C; Benzaria S; Amador A; ***Moussa A***; Mathieu S;
Storer R***; Gosselin G (Reprint)
AUTHOR ADDRESS: Univ Montpellier 2, CNRS, Lab Cooperat Indenix, Pl Eugene
  Bataillon,Case Courrir 008, F-34095 Montpellier, France**France
AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
JOURNAL: Nucleosides Nucleotides & Nucleic Acids  24 (5-7, Sp. Iss. SI): p
767-770 2005 2005
ISSN: 1525-7770
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
  MAJOR CONCEPTS: Pharmacology; Infection; Digestive System--Ingestion and
    Assimilation
  BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses,
    Microorganisms
  ORGANISMS: Hepatitis C virus (Flaviviridae)--pathogen
  COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded
    RNA Viruses; Viruses
  DISEASES: hepatitis C virus infection--digestive system disease, viral
    disease, drug therapy,  etiology
  CHEMICALS & BIOCHEMICALS:   NM 283 (3'-O-L-valinyl ester derivative)--
```

antiinfective-drug, antiviral-drug, efficacy, synthesis; 2'-C-methylcytidine--antiinfective-drug, antiviral-drug, oral bioavailability

17/3,DE/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015219215 BIOSIS NO.: 200500126280
Synthesis of (-)-DAPD
AUTHOR: Sznaidman Marcos L (Reprint); Du Jinfa; Pesyan Amir; Cleary Darryl G; Hurley Kevin P; ***Waligora Frank***; Almond Merrick R
AUTHOR ADDRESS: Norak Biosci, POB 14769, Res Triangle Pk, NC, 27709, USA** USA
AUTHOR E-MAIL ADDRESS: msznaidman@norakbio.com
JOURNAL: Nucleosides Nucleotides & Nucleic Acids 23 (12): p1875-1887 2004 2004
MEDIUM: print
ISSN: 1525-7770 _(ISSN print)
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Methods and Techniques; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
ORGANISMS: HIV {Human immunodeficiency virus} (Retroviridae)--pathogen
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses
CHEMICALS & BIOCHEMICALS: DAPD--antiinfective-drug, antiviral-drug; dioxolane ***nucleoside***
METHODS & EQUIPMENT: HPLC {high performance liquid chromatography}--chromatographic techniques, laboratory techniques; gas chromatography --chromatographic techniques, laboratory techniques
MISCELLANEOUS TERMS: organic ***synthesis***

17/3,DE/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014278924 BIOSIS NO.: 200300235724
NM 283 has potent antiviral activity against genotype 1 chronic hepatitis C virus (HCV-1) infection in the chimpanzee.
AUTHOR: Standring D N (Reprint); Lanford R; Wright T; Chung R T; Bichko V (Reprint); Cretton-Scott E (Reprint); Pan-Zhou X (Reprint); Bergelson S (Reprint); Qu L (Reprint); Tausek M (Reprint); Bridges E (Reprint); **Moussa A*** (Reprint); ***Storer R*** (Reprint); Pierra C; Benzaria S; Gosselin G; La Colla P; Sommadossi J P (Reprint)**
AUTHOR ADDRESS: Idenix Pharmaceuticals, Cambridge, MA, USAUSA**
JOURNAL: Journal of Hepatology 38 (Supplement 2): p3 April 2003 2003**
MEDIUM: print
CONFERENCE/MEETING: 38th Annual Meeting of the European Association for the Study of the Liver Instanbul, Turkey March 29-April 01, 2003; 20030329
SPONSOR: European Association for the Study of the Liver
ISSN: 0168-8278 _(ISSN print)
DOCUMENT TYPE: Meeting; Meeting Abstract
RECORD TYPE: Citation
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Digestive System--Ingestion and Assimilation; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses, Microorganisms; Pongidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: hepatitis C virus-1 {Hepatitis C virus} (Flaviviridae)--

pathogen; chimpanzee (Pongidae)--host, animal model
ORGANISMS: PARTS ETC: serum--blood and lymphatics
COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded RNA Viruses; Viruses; Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Nonhuman Primates; Primates; Vertebrates
DISEASES: hepatitis C virus infection--digestive system disease, viral disease
MESH TERMS: Hepatitis C (MeSH)
CHEMICALS & BIOCHEMICALS: NM283--antiinfective-drug, antiviral-drug, oral administration, prodrug; viral RNA; NM107--antiinfective-drug, antiviral-drug

17/3,DE/4 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

13413667 EMBASE No: 2005461046
NM 283, an efficient prodrug of the potent anti-HCV agent 2prime-C-methylcytidine
Pierra C.; Benzaria S.; Amador A.; ***Moussa A.***; Mathieu S.; ***Storer*** ***R.***; Gosselin G.
G. Gosselin, Laboratoire Cooperatif Idenix, CNRS, Universite Montpellier II, Place Eugene Bataillon, 34095 Montpellier Cedex 5 France
AUTHOR EMAIL: gosselin@univ-montp2.fr
Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES NUCLEIC ACIDS) (United States) 2005, 24/5-7 (767-770)
CODEN: NNNAF ISSN: 1525-7770
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 10
DRUG DESCRIPTORS:
*antivirus agent--drug analysis--an; *antivirus agent--drug development--dv ; *antivirus agent--drug therapy--dt; *antivirus agent--oral drug administration--po; *ester derivative--drug analysis--an; *ester derivative --drug development--dv; *ester derivative--drug therapy--dt; *ester derivative--oral drug administration--po
unclassified drug
MEDICAL DESCRIPTORS:
*hepatitis C--drug therapy--dt
drug potency; drug synthesis; physical chemistry; antiviral activity; Hepatitis C virus; human; conference paper

17/3,DE/5 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0014753865
WPI ACC NO: 2005-101497/200511
XRAM Acc No: C2005-033941
Preparing ***nucleoside***, ***nucleoside*** analog or prodrug, by deprotecting 3'-, 5'-di-O-toluoyl substituents on 1,4-lactone by treating 1-***nucleoside*** base-2'-deoxy-3'-5'-di-O-toluoyl-***ribofuranose*** with sodium methoxide, thus ***producing*** ***nucleoside***
Patent Assignee: CHAUDHURI N C (CHAU-I); IDENIX CAYMAN LTD (IDEN-N); MATHIEU S (MATH-I); MOUSSA A (MOUS-I); STEWART A (STEW-I); STORER R (STOR-I); WANG J (WANG-I)
Inventor: CHAUDHUN N; ***CHAUDHURI N***; ***CHAUDHURI N C***; MATHIEU S; **MOUSSA A***; STEWART A; ***STORER R***; WANG J; WANG J Y; JING Y W**
6 patents, 107 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2005003374	A2	20050113	WO 2004US21281	A	20040630	200511	B
US 20050059632	A1	20050317	US 2003483711	P	20030630	200521	E
			US 2004558616	P	20040401		

			US 2004882893	A	20040630			
EP 1639121	A2	20060329	EP 2004777433	A	20040630	200623	E	
			WO 2004US21281	A	20040630			
NO 200600469	A	20060330	NO 2006469	A	20060130	200627	E	
MX 2006000162	A1	20060401	WO 2004US21281	A	20040630	200654	E	
			MX 2006162	A	20060105			
AU 2004254620	A1	20050113	AU 2004254620	A	20040630	200656	E	

Priority Applications (no., kind, date): US 2004882893 A 20040630; US 2003483711 P 20030630; US 2004558616 P 20040401

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2005003374	A2	EN	136	29	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

US 20050059632	A1	EN	Related to Provisional US 2003483711 Related to Provisional US 2004558616
EP 1639121	A2	EN	PCT Application WO 2004US21281 Based on OPI patent WO 2005003374

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

MX 2006000162	A1	ES	PCT Application WO 2004US21281 Based on OPI patent WO 2005003374
AU 2004254620	A1	EN	Based on OPI patent WO 2005003374

17/3,DE/6 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0014631797
WPI ACC NO: 2004-813796/200480
XRAM Acc No: C2004-283115
Preparation of beta-L-2'-***deoxynucleoside*** useful for treating viral infections involves reacting an optionally protected ***nucleoside*** base with a silylating reagent and reacting the ***formed*** silylated ***nucleoside*** base with 1-halo-2-deoxy-L-sugar
Patent Assignee: IDENIX CAYMAN LTD (IDEN-N); MOUSSA A (MOUS-I); STORER R (STOR-I); WANG J Y (WANG-I)
Inventor: ***MOUSSA A***; ***STORER R***; WANG J; WANG J Y
3 patents, 107 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004096149	A2	20041111	WO 2004US13127	A	20040428	200480	B
US 20050004357	A1	20050106	US 2003466196	P	20030428	200504	E
			US 2004833925	A	20040428		
EP 1620451	A2	20060201	EP 2004750833	A	20040428	200612	E
			WO 2004US13127	A	20040428		

Priority Applications (no., kind, date): US 2004833925 A 20040428; US 2003466196 P 20030428

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004096149	A2	EN	44	9	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW

MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR
TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI
SK SL SZ TR TZ UG ZM ZW
US 20050004357 A1 EN Related to Provisional US 2003466196
EP 1620451 A2 EN PCT Application WO 2004US13127
Based on OPI patent WO 2004096149
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR
GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

17/3,DE/7 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014631796
WPI ACC NO: 2004-813795/200480
XRAM Acc No: C2004-283114
New oxo-pyrimidine compounds are reverse transcriptase inhibitors useful for salvage therapy in the treatment or prophylaxis of HIV-infections
Patent Assignee: ARTICO M (ARTI-I); IDENIX CAYMAN LTD (IDEN-N); LA COLLA P (LCOL-I); MOUSSA A (MOUS-I); STORER R (STOR-I)
Inventor: ARTICO M; LA COLLA P; ***MOUSSA A***; ***STORER R***
3 patents, 107 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004096147	A2	20041111	WO 2004US13086	A	20040428	200480	B
US 20050014774	A1	20050120	US 2003466195	P	20030428	200512	E
			US 2004833601	A	20040428		
EP 1620407	A2	20060201	EP 2004760424	A	20040428	200612	E
			WO 2004US13086	A	20040428		

Priority Applications (no., kind, date): US 2004833601 A 20040428; US 2003466195 P 20030428
Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004096147	A2	EN	99	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW
BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR
HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW
MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR
TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES
FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI
SK SL SZ TR TZ UG ZM ZW
US 20050014774 A1 EN Related to Provisional US 2003466195
EP 1620407 A2 EN PCT Application WO 2004US13086
Based on OPI patent WO 2004096147
Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI
FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

17/3,DE/8 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014482063
WPI ACC NO: 2004-122412/200412
Related WPI Acc No: 2004-132680; 2004-180195; 2004-480899
XRAM Acc No: C2004-049128
New 1',2',3' and 4'-branched pyrimidine or purine ***nucleosides*** useful for treating Flaviviridae virus infection e.g. hepatitis C virus infection in a host

Patent Assignee: CENT NAT RECH SCI (CNRS); CHAUDHURI N (CHAU-I); CNRS CENT NAT RECH SCI (CNRS); DE LA RECHERCHE S C N (DREC-I); IDENIX CAYMAN LTD (IDEN-N); MOUSSA A M (MOUS-I); STORER R (STOR-I); UNIV CAGLIARI (UYCA-N); UNIV STUDI CAGLIARI (UYCA-N); WALIGORA F (WALI-I)
Inventor: ***CHAUDHURI N***; COLLA P L; GOSSELIN G; LA COLLA P; LACOLLA P; **MOUSSA A M***; SOMMADOSSI J; SOMMADOSSI J P; ***STORER R***; ***WALIGORA F***; CENTRE NATIONAL DE LA RECHERCH**
12 patents, 104 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004002999	A2	20040108	WO 2003IB3246	A	20030627	200412	B
AU 2003247084	A1	20040119	AU 2003247084	A	20030627	200447	E
US 20050020825	A1	20050127	US 2002432766	P	20021212	200509	E
			US 2003466194	P	20030428		
			US 2003735408	A	20031212		
EP 1523489	A2	20050420	EP 2003761744	A	20030627	200527	E
			WO 2003IB3246	A	20030627		
NO 200500465	A	20050127	WO 2003IB3246	A	20030627	200540	E
			NO 2005465	A	20050127		
JP 2005533817	W	20051110	WO 2003IB3246	A	20030627	200574	E
			JP 2004517158	A	20030627		
CN 1678326	A	20051005	CN 2003820701	A	20030627	200606	E
CN 1678621	A	20051005	CN 2003820690	A	20030627	200606	E
MX 2004012709	A1	20051001	WO 2003IB3246	A	20030627	200620	E
			MX 200412709	A	20041215		
KR 2005048544	A	20050524	WO 2003IB3246	A	20030627	200642	E
			KR 2004721286	A	20041227		
CN 1744903	A	20060308	CN 200380109576	A	20031212	200649	E
CN 1761677	A	20060419	CN 2003820501	A	20030627	200654	E

Priority Applications (no., kind, date): US 2003735408 A 20031212; US 2002432766 P 20021212; US 2003466194 P 20030428; US 2002392350 P 20020628; US 2002392351 P 20020628; US 2003470949 P 20030514

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004002999	A2	EN	201	4	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003247084	A1	EN		Based on OPI patent WO 2004002999
US 20050020825	A1	EN		Related to Provisional US 2002432766
				Related to Provisional US 2003466194
EP 1523489	A2	EN		PCT Application WO 2003IB3246
				Based on OPI patent WO 2004002999

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200500465	A	NO		PCT Application WO 2003IB3246
JP 2005533817	W	JA	180	PCT Application WO 2003IB3246
				Based on OPI patent WO 2004002999
MX 2004012709	A1	ES		PCT Application WO 2003IB3246
				Based on OPI patent WO 2004002999
KR 2005048544	A	KO		PCT Application WO 2003IB3246
				Based on OPI patent WO 2004002999

17/3,DE/9 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014345904
WPI ACC NO: 2004-534120/200451
XRAM Acc No: C2004-196485
Selective esterification of 3'-hydroxyl position of a 2'-branched ***ribofuranosyl*** ***nucleoside***, useful as an antiviral agent, comprises reacting ***ribofuranosyl*** ***nucleoside***, optionally protected organic acid, coupling reagent and base
Patent Assignee: IDENIX CAYMAN LTD (IDEN-N); MATHIEU S (MATH-I); MOUSSA A M (MOUS-I); STORER R (STOR-I)
Inventor: MATHIEU S; ***MOUSSA A***; ***MOUSSA A M***; QU L; ***STORER R***
10 patents, 106 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004058792	A1	20040715	WO 2003US41603	A	20031223	200451	B
US 20040181051	A1	20040916	US 2002436150	P	20021223	200461	E
			US 2003746395	A	20031223		
AU 2003300434	A1	20040722	AU 2003300434	A	20031223	200476	E
EP 1575971	A1	20050921	EP 2003814400	A	20031223	200562	E
			WO 2003US41603	A	20031223		
NO 200503557	A	20050908	WO 2003US41603	A	20031223	200565	E
			NO 20053557	A	20050720		
BR 200316868	A	20051025	BR 200316868	A	20031223	200571	E
			WO 2003US41603	A	20031223		
JP 2006514038	W	20060427	WO 2003US41603	A	20031223	200628	E
			JP 2004562599	A	20031223		
MX 2005006865	A1	20051201	WO 2003US41603	A	20031223	200628	E
			MX 20056865	A	20050622		
ZA 200505040	A	20060426	ZA 20055040	A	20050621	200635	E
CN 1751058	A	20060322	CN 200380109820	A	20031223	200649	E

Priority Applications (no., kind, date): US 2003746395 A 20031223; US 2002436150 P 20021223

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004058792	A1	EN	57	3	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

US 20040181051	A1	EN		Related to Provisional US 2002436150
AU 2003300434	A1	EN		Based on OPI patent WO 2004058792
EP 1575971	A1	EN		PCT Application WO 2003US41603
				Based on OPI patent WO 2004058792

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200503557	A	NO		PCT Application WO 2003US41603
BR 200316868	A	PT		PCT Application WO 2003US41603
				Based on OPI patent WO 2004058792
JP 2006514038	W	JA	47	PCT Application WO 2003US41603
				Based on OPI patent WO 2004058792
MX 2005006865	A1	ES		PCT Application WO 2003US41603
				Based on OPI patent WO 2004058792
ZA 200505040	A	EN	63	

17/3,DE/10 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014294144

WPI ACC NO: 2004-480899/200445
Related WPI Acc No: 2004-122412; 2004-132680; 2004-180195; 2005-214393; 2006-545893
XRAM Acc No: C2004-178926
Preparation of a 3'-O-amino acid ester ***nucleoside*** comprises reaction of ***ribofuranose*** with a base and silylating reagent, deprotecting, silylating, coupling and removing the protecting group
Patent Assignee: IDENIX CAYMAN LTD (IDEN-N)
Inventor: ***CHAUDHURI N***; ***MOUSSA A***; ***STORER R***; ***WALIGORA*** *** F***
5 patents, 106 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004052899	A2	20040624	WO 2003US39643	A	20031212	200445	B
AU 2003300901	A1	20040630	AU 2003300901	A	20031212	200472	E
EP 1585529	A2	20051019	EP 2003812993	A	20031212	200568	E
			WO 2003US39643	A	20031212		
MX 2005006230	A1	20050901	WO 2003US39643	A	20031212	200617	E
			MX 20056230	A	20050610		
JP 2006514993	W	20060518	WO 2003US39643	A	20031212	200635	E
			JP 2005511773	A	20031212		

Priority Applications (no., kind, date): US 2002432766 P 20021212; US 2003466194 P 20030428

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004052899	A2	EN	90	6	
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					
AU 2003300901	A1	EN			Based on OPI patent WO 2004052899
EP 1585529	A2	EN			PCT Application WO 2003US39643
					Based on OPI patent WO 2004052899
Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR					
MX 2005006230	A1	ES			PCT Application WO 2003US39643
					Based on OPI patent WO 2004052899
JP 2006514993	W	JA	64		PCT Application WO 2003US39643
					Based on OPI patent WO 2004052899

17/3,DE/11 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014056195
WPI ACC NO: 2004-238646/200422
XRAM Acc No: C2004-093307
New phenylindole derivatives are reverse transcriptase inhibitors, useful in the treatment of e.g. AIDS-related complex, persistent generalized lymphadenopathy and Kaposi's sarcoma
Patent Assignee: ARTICO M (ARTI-I); IDENIX CAYMAN LTD (IDEN-N); LACOLLA P (LACO-I); MOUSSA A (MOUS-I); SILVESTRI R (SILV-I); SOMMADOSSI J (SOMM-I); STORER R (STOR-I); UNIV CAGLIARI (UYCA-N)
Inventor: ARTICO M; LA COLLA P; LACOLLA P; ***MOUSSA A***; ***MOUSSA A M*** ; SILVESTRI R; SOMMADOSSI J; SOMMADOSSI J P; ***STORER R***
6 patents, 104 countries
Patent Family

Patent	Application

Number	Kind	Date	Number	Kind	Date	Update	
WO 2004014364	A1	20040219	WO 2003US24957	A	20030807	200422	B
AU 2003258145	A1	20040225	AU 2003258145	A	20030807	200456	E
US 20040180945	A1	20040916	US 2002401915	P	20020807	200461	E
			US 2003637949	A	20030807		
EP 1545510	A1	20050629	EP 2003785103	A	20030807	200543	E
			WO 2003US24957	A	20030807		
AU 2003258145	A8	20040225	AU 2003258145	A	20030807	200562	E
JP 2006500355	W	20060105	WO 2003US24957	A	20030807	200603	E
			JP 2004527940	A	20030807		

Priority Applications (no., kind, date): US 2003637949 A 20030807; US 2002401915 P 20020807

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004014364	A1	EN	178	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003258145	A1	EN	Based on OPI patent WO 2004014364
US 20040180945	A1	EN	Related to Provisional US 2002401915
EP 1545510	A1	EN	PCT Application WO 2003US24957
			Based on OPI patent WO 2004014364

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

AU 2003258145	A8	EN	Based on OPI patent WO 2004014364
JP 2006500355	W	JA 132	PCT Application WO 2003US24957
			Based on OPI patent WO 2004014364

17/3,DE/12 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013903552
WPI ACC NO: 2004-083006/200408
XRAM Acc No: C2004-034122
XRPX Acc No: N2004-066310
Decontamination of a domestic hot water pipe, containing stagnant water, has a conductive cladding over the pipe length with a closed circuit formed between two end points and a variable magnetic flow through it
Patent Assignee: DESCHAMPS LATHUS SA (DESC-N); IDENIX CAYMAN LTD (IDEN-N); NTU VENTURES PTE LTD (NTUV-N)
Inventor: BAILLI D; ***CHAUDHURI N***; DELPIERRE F; GUITTON R; LATHUS L; **MOUSSA A***; PRIOTON C; ***STORER R***; ***WALIGORA F**
9 patents, 99 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004002899	A2	20040108	WO 2003FR2008	A	20030627	200408	B
FR 2841475	A1	20040102	FR 20028060	A	20020628	200414	E
AU 2003267500	A1	20040119	AU 2003267500	A	20030627	200447	E
EP 1517861	A2	20050330	EP 2003748190	A	20030627	200522	E
			WO 2003FR2008	A	20030627		
NO 200503115	A	20050818	WO 2003US39643	A	20031212	200558	E
			NO 20053115	A	20050624		
EP 1517861	B1	20060215	EP 2003748190	A	20030627	200614	E
			WO 2003FR2008	A	20030627		
AU 2003267500	A8	20051027	AU 2003267500	A	20030627	200624	E
US 20060081617	A1	20060420	WO 2003FR2008	A	20030627	200627	E

			US 2005519556	A	20050829		
DE 60303605	E	20060420	DE 60303605	A	20030627	200628	E
			EP 2003748190	A	20030627		
			WO 2003FR2008	A	20030627		

Priority Applications (no., kind, date): US 2003466194 P 20030428; US 2002432766 P 20021212; FR 20028060 A 20020628

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004002899	A2	FR	29	3	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003267500	A1	EN	Based on OPI patent WO 2004002899
EP 1517861	A2	FR	PCT Application WO 2003FR2008
			Based on OPI patent WO 2004002899

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200503115	A	NO	PCT Application WO 2003US39643
EP 1517861	B1	FR	PCT Application WO 2003FR2008
			Based on OPI patent WO 2004002899

Regional Designated States,Original: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

AU 2003267500	A8	EN	Based on OPI patent WO 2004002899
US 20060081617	A1	EN	PCT Application WO 2003FR2008
DE 60303605	E	DE	Application EP 2003748190
			PCT Application WO 2003FR2008
			Based on OPI patent EP 1517861
			Based on OPI patent WO 2004002899

Germany
Publication No. DE 60303605 E (Update 200628 E)
Publication Date: 20060420
Language: DE
Application: DE 60303605 A 20030627 (Local application)
EP 2003748190 A 20030627 (Application)
WO 2003FR2008 A 20030627 (PCT Application)
Priority: FR 20028060 A 20020628
Related Publication: EP 1517861 A (Based on OPI patent)
WO 2004002899 A (Based on OPI patent)
Original IPC: A61L-2/00(I,DE,20060101,A,L) C02F-1/48(I,DE,20060101,A,F)
Current IPC: A61L-2/00(I,DE,20060101,A,L) C02F-1/48(I,DE,20060101,A,F)

17/3,DE/13 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0010363557
WPI ACC NO: 2000-679454/200066
XRAM Acc No: C2000-206603
Preparation of 6-benzyl-1-(ethoxymethyl)-5-isopropoyluracil (MKC-442), useful as an antiviral agent, particularly for treating HIV infection
Patent Assignee: CATALYTICA PHARM (CATA-N); DSM PHARM INC (STAM); TRIANGLE PHARM INC (TRIA-N)
Inventor: ALMOND M R; CLEARY D G; KUZEMKO M; MUNGAL T; O'MAHONY R; **WALIGORA F**
7 patents, 91 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2000061566	A1	20001019	WO 2000US9965	A	20000413	200066	B
AU 200044590	A	20001114	AU 200044590	A	20000413	200108	E
EP 1169310	A1	20020109	EP 2000925979	A	20000413	200205	E
			WO 2000US9965	A	20000413		
CN 1352637	A	20020605	CN 2000806152	A	20000413	200261	E
KR 2002040657	A	20020530	KR 2001712800	A	20011008	200276	E
JP 2002541247	W	20021203	JP 2000610841	A	20000413	200309	E
			WO 2000US9965	A	20000413		
IN 200100941	P1	20050311	EP 2000921131	A	20000412	200642	E
			IN 2001DN941	A	20011015		

Priority Applications (no., kind, date): US 1999128925 P 19990413

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2000061566	A1	EN	28	1	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200044590	A	EN		Based on OPI patent WO 2000061566
EP 1169310	A1	EN		PCT Application WO 2000US9965
				Based on OPI patent WO 2000061566

Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

JP 2002541247	W	JA	29	PCT Application WO 2000US9965
				Based on OPI patent WO 2000061566
IN 200100941	P1	EN		PCT Application EP 2000921131

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18/3,DE/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2006 The Thomson Corporation. All rts. reserv.

0015680368 BIOSIS NO.: 200600025763
Rapid access to 2 '-branched-carbocyclic ***nucleosides*** and their 4 '-epimers from 2-alkyl-cyclopentene-1-ones
AUTHOR: Meillon J-C; Griffe L; ***Storer R***; Gosselin G (Reprint)
AUTHOR ADDRESS: Univ Montpellier 2, CNRS, Lab Cooperat Idenix, Pl Eugene Bataillon,Case Courrier 008, F-34095 Montpellier 5, France**France
AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p 695-699 2005 2005
ISSN: 1525-7770
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Pharmacology; Infection; Methods and Techniques
BIOSYSTEMATIC NAMES: Viruses--Microorganisms
ORGANISMS: Virus (Viruses)--pathogen
COMMON TAXONOMIC TERMS: Microorganisms; Viruses
DISEASES: viral infection--viral disease, drug therapy
MESH TERMS: Virus Diseases (MeSH)
CHEMICALS & BIOCHEMICALS: 2-methyl-2-cyclopentene-1-one; 2'-branched-carbocyclic ***nucleosides***; 4'-epicarbocycles--antiinfective-drug, antiviral-drug
METHODS & EQUIPMENT: drug ***synthesis***--laboratory techniques

18/3,DE/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015680362 BIOSIS NO.: 200600025757
Synthesis of 5-aza-7-deazaguanine ***nucleoside*** derivatives as potential anti-flavivirus agents
AUTHOR: Dukhan D; Leroy F; Peyronnet J; Bosc E; Chaves D; Durka M; **Storer R***; La Colla P; Seela F; Gosselin G (Reprint)**
AUTHOR ADDRESS: Univ Montpellier 2, Lab Cooperat Idenix, CNRS, Pl Eugene Bataillon,Case Courrier 008, F-34095 Montpellier 5, France France**
AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p 671-674 2005 2005
ISSN: 1525-7770
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
REGISTRY NUMBERS: 7646-69-7: sodium hydride
DESCRIPTORS:
MAJOR CONCEPTS: Pharmacology; Chemistry
BIOSYSTEMATIC NAMES: Flaviviridae--Positive Sense ssRNA Viruses, Viruses, Microorganisms
ORGANISMS: West Nile virus (Flaviviridae); Bovine viral diarrhea virus (Flaviviridae); Yellow fever virus (Flaviviridae); Dengue virus 2 { Dengue virus} (Flaviviridae)
COMMON TAXONOMIC TERMS: Microorganisms; Positive Sense Single-Stranded RNA Viruses; Viruses
CHEMICALS & BIOCHEMICALS: RNA; D-*ribofuranose***; sodium hydride; L-***ribofuranose***; branched sugars; 3'-deoxysugar; 2'-deoxysugar; 2-aminoimidazo{1,2-a}-s-triazin-4-one; 5-aza-7-deazaguanine ***nucleoside***--***synthesis**
METHODS & EQUIPMENT: Vorbruggen's method--laboratory techniques
MISCELLANEOUS TERMS: antiviral property

18/3,DE/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0015680361 BIOSIS NO.: 200600025756
Synthesis of 2 '-C-methyl-beta-D-***ribofuranosylimidazo*** [4,5-d]-pyridazine derivatives (2-aza-3-deazapurine ***nucleoside*** analogues)
AUTHOR: Leroy F; Dukhan D; Durka M; Chaves D; Bragnier N; ***Storer R***; Gosselin G (Reprint)
AUTHOR ADDRESS: Univ Montpellier 2, Lab Cooperat Idenix, CNRS, Pl Eugene Bataillon,Case Courrier 008, F-34095 Montpellier 5, France**France
AUTHOR E-MAIL ADDRESS: gosselin@univ-montp2.fr
JOURNAL: Nucleosides Nucleotides & Nucleic Acids 24 (5-7, Sp. Iss. SI): p 667-669 2005 2005
ISSN: 1525-7770
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Pharmacology; Chemistry
CHEMICALS & BIOCHEMICALS: 2'-C-methyl-beta-D-***ribofuranonucleoside*** --***synthesis***; 2'-C-methyl-beta-D-riboguranosylimidazo {4,5-d} -pyridazine--***synthesis***
MISCELLANEOUS TERMS: antiviral property

18/3,DE/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013177158 BIOSIS NO.: 200100348997
1,3-oxathiolane ***nucleoside*** analogues

AUTHOR: Coates Jonathan Allan (Reprint); Mutton Ian Martin; Penn Charles Richard; Williamson Christopher; ***Storer Richard***
AUTHOR ADDRESS: Greenford, UK**UK
JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1242 (5): Jan. 30, 2001 2001
MEDIUM: e-file
PATENT NUMBER: US 6180639 PATENT DATE GRANTED: January 30, 2001 20010130
PATENT CLASSIFICATION: 514-274 PATENT ASSIGNEE: BioChem Pharma Inc., Laval, Canada PATENT COUNTRY: USA
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Methods and Techniques; Pharmacology
CHEMICALS & BIOCHEMICALS: 1,3-oxathiolane ***nucleoside*** analogues--antiviral-drug
METHODS & EQUIPMENT: 1,3-oxathiolane ***nucleoside*** analogue **preparation*** method--synthetic method**

18/3,DE/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0011921968 BIOSIS NO.: 199900181628
The ***synthesis*** and antiviral activity of 4-fluoro-1-beta-D-**ribofuranosyl***-1H-pyrazole-3-carboxamide**
AUTHOR: ***Storer Richard* (Reprint); Ashton Claire J; Baxter Anthony D; Hann Michael M; Marr Clara LP; Mason Andrew M; Mo Chi-Leung; Myers Peter L; Noble Stewart A; Penn Charles R; Weir Niall G; Woods Jacqueline M; Coe Paul L**
AUTHOR ADDRESS: Medicines Research Centre, GlaxoWellcome Research and Development, Gunnels Wood Road, Stevenage, Hertfordshire, SG1 2NY, UKUK**
JOURNAL: Nucleosides and Nucleotides 18 (2): p203-216 Feb., 1999 1999
MEDIUM: print
ISSN: 0732-8311
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
REGISTRY NUMBERS: 36791-04-5: ribavirin
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
DISEASES: influenza--respiratory system disease, viral disease
MESH TERMS: Influenza (MeSH)
CHEMICALS & BIOCHEMICALS: ribavirin--antiviral-drug; 4-fluoro-1-beta-D-*ribofuranosyl***-1H-pyrazole-3-carboxamide--antiviral-drug, antiinfluenza activity, ***synthesis***, fluoropyrazole ribonucleoside**
METHODS & EQUIPMENT: ***synthesis*--synthetic method**
MISCELLANEOUS TERMS: mode of action

18/3,DE/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009807949 BIOSIS NO.: 199598275782
An efficient method for the ***synthesis*** of aromatic C-***nucleosides***
AUTHOR: ***Chaudhuri Narayan C***; Kool Eric T (Reprint)
AUTHOR ADDRESS: Dep. Chem., Univ. Rochester, Rochester, NY 14627, USA**USA
JOURNAL: Tetrahedron Letters 36 (11): p1795-1798 1995 1995
ISSN: 0040-4039
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: English
DESCRIPTORS:

MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Methods and Techniques
MISCELLANEOUS TERMS: SYNTHETIC METHOD

18/3,DE/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008745365 BIOSIS NO.: 199395047631
The potential of carbocyclic ***nucleosides*** for the treatment of AIDS: **Synthesis*** of some diphosphorylphosphonates possessing potent activity against HIV-coded reverse transcriptase**
AUTHOR: Coe Diane M; Roberts Stanley M (Reprint); ***Storer Richard
AUTHOR ADDRESS: Dep. Chem., Exeter University, Exeter, Devon EX4 4QD, UK** UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I 0 (20): p 2695-2704 1992
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology--Biochemistry and Molecular Biophysics; Genetics; Immune System--Chemical Coordination and Homeostasis; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
ORGANISMS: human immunodeficiency virus (Retroviridae)
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses
MISCELLANEOUS TERMS: ACQUIRED IMMUNODEFICIENCY SYNDROME; POTENTIAL ANTIVIRALS; POTENTIAL ENZYME INHIBITORS; SYNTHETIC METHOD

18/3,DE/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008391691 BIOSIS NO.: 199294093532
ENANTIOSPECIFIC ***SYNTHESIS*** OF 3' HETERODIDEOXY ***NUCLEOSIDE*** ANALOGUES AS POTENTIAL ANTI-HIV AGENTS
AUTHOR: JONES M F (Reprint); NOBLE S A; ROBERTSON C A; ***STORER R***; HIGHCOCK R M; LAMONT R B
AUTHOR ADDRESS: DEP MED CHEM, GLAXO GROUP RES LIMITED, GREENFORD RD, GREENFORD, MIDDLESEX UB6 0HE, UK**UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I (11): p 1427-1436 1992
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
DESCRIPTORS: ANTI-HUMAN IMMUNODEFICIENCY VIRUS AGENTS 2R 4R-4-6' AMINO-9'H-PURIN-9'-YLTETRAHYDROFURAN-2-METHANOL 3'R 5'R-4 AMINO-1-5'-BENZYLOXYMETHYLTETRAHYDRO-3'-THIENYLPYRIMIDIN-2-1H-ONE SYNTHETIC METHOD
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

18/3,DE/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008171468 BIOSIS NO.: 199293014359
THE POTENTIAL OF CARBOCYCLIC ***NUCLEOSIDES*** FOR THE TREATMENT OF AIDS
SYNTHESIS* OF CARBOCYCLIC 6' FLUORO-2' 3'-DIDEOXYTHYMIDINE**
AUTHOR: COE D M (Reprint); PARRY D M; ROBERTS S M; ***STORER R
AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, EXETER, DEVON EX4 4QD, UK**UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I (10): p
2373-2378 1991
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS REVERSE TRANSCRIPTASE INHIBITOR
ANTIVIRAL AGENTS ACQUIRED IMMUNODEFICIENCY SYNDROME
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

18/3,DE/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008135964 BIOSIS NO.: 199243104555
SYNTHESIS OF CHIRAL ***NUCLEOSIDE*** ANALOGUES AS ANTIVIRAL AGENTS
AUTHOR: ***STORER R*** (Reprint); BAXTER A D; CLEMENS I R; PATERNOSTER I L; WILLIAMSON C
AUTHOR ADDRESS: MEDICINAL CHEM II, GLAXO GROUP RES, GREENFORD, MIDDLESEX UB6 0HE, UK**UK
JOURNAL: Abstracts of Papers American Chemical Society 204 (1-2): pORGN 404 1992
CONFERENCE/MEETING: 204TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING, WASHINGTON, D.C., USA, AUGUST 23-28, 1992. ABSTR PAP AM CHEM SOC.
ISSN: 0065-7727
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH
DESCRIPTORS: ABSTRACT
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
BIOSYSTEMATIC NAMES: Viruses--Microorganisms
COMMON TAXONOMIC TERMS: Microorganisms; Viruses

18/3,DE/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007804369 BIOSIS NO.: 199192050140
THE POTENTIAL FOR USING CARBOCYCLIC ***NUCLEOSIDES*** FOR THE TREATMENT OF AIDS PART 1. ***PREPARATION*** OF SOME ANALOGUES FOR AZIDOTHYMIDINE AZT
AUTHOR: HIGHCOCK R M (Reprint); HILPERT H; MYERS P L; ROBERTS S M; **STORER R**
AUTHOR ADDRESS: DEP CHEMISTRY, EXETER UNIVERSITY, EXETER, DEVON EX4 4QD, UK **UK
JOURNAL: Journal of the Chemical Society Perkin Transactions I (5): p
1127-1134 1991
ISSN: 0300-922X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 30516-87-1: AZIDOTHYMIDINE
DESCRIPTORS: ANTIVIRAL-DRUG ACQUIRED IMMUNODEFICIENCY SYNDROME

DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Blood and Lymphatics--Transport and Circulation; Clinical Endocrinology--Human Medicine, Medical Sciences; Hematology--Human Medicine, Medical Sciences; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses; Animals; Chordates; Humans; Mammals; Primates; Vertebrates
CHEMICALS & BIOCHEMICALS: AZIDOTHYMIDINE

18/3,DE/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007653645 BIOSIS NO.: 199191036536
ATTEMPTED RING CONTRACTION OF ALPHA TRIFLATES OF 3 AZIDO-GAMMA-LACTONES AND 3 FLUORO-GAMMA-LACTONES TO OXETANES
AUTHOR: ELLIOTT R P (Reprint); FLEET G W J; VOGT K; WILSON F X; WANG Y; WITTY D R; ***STORER R***; MYERS P L; WALLIS C J
AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1 3QY, UK**UK
JOURNAL: Tetrahedron Asymmetry 1 (10): p715-720 1990
ISSN: 0957-4166
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 37181-39-8: TRIFLATES; 503-30-0D: OXETANES; 503-30-0: OXETANE; 584-08-7: POTASSIUM CARBONATE; 67-56-1: METHANOL
DESCRIPTORS: OXETANE ***NUCLEOSIDES*** ANTIVIRAL AGENTS POTASSIUM CARBONATE METHANOL
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacology
CHEMICALS & BIOCHEMICALS: TRIFLATES; OXETANES; OXETANE; POTASSIUM CARBONATE; METHANOL

18/3,DE/13 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007641926 BIOSIS NO.: 199191024817
SYNTHESIS OF THE POTENT ANTIVIRAL OXETANE ***NUCLEOSIDE*** EPINOROXETANOCIN FROM D LYXONOLACTONE
AUTHOR: WANG Y (Reprint); FLEET G W J; ***STORER R***; MYERS P L; WALLIS C J; DOHERTY O; WATKIN D J; VOGT K; WITTY D R; WILSON F X; PEACH M J
AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1 3QY, UK**UK
JOURNAL: Tetrahedron Asymmetry 1 (8): p527-530 1990
ISSN: 0957-4166
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 503-30-0: OXETANE; 103913-16-2: OXETANOCIN
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 OXETANOCIN NOROXETANOCIN ANTIVIRAL-DRUG CRYSTAL STRUCTURE
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Immune System--Chemical Coordination and Homeostasis; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses
CHEMICALS & BIOCHEMICALS: OXETANE; OXETANOCIN

18/3,DE/14 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007640712 BIOSIS NO.: 199191023603
SYNTHESIS OF THE OXETANE ***NUCLEOSIDES*** ALPHA NOROXETANOCIN AND BETA NOROXETANOCIN
AUTHOR: WILSON F X (Reprint); FLEET G W J; WITTY D R; VOGT K; WANG Y; **STORER R***; MYERS P L; WALLIS C L**
AUTHOR ADDRESS: DYSON PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD, OX1 3QY, UKUK**
JOURNAL: Tetrahedron Asymmetry 1 (8): p525-526 1990
ISSN: 0957-4166
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 503-30-0: OXETANE
DESCRIPTORS: 9-BETA-D-ERYTHRO OXETANOSYLADENINE 3 5 DI-O-BENZYL-D-RIBONOLACTONE
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics
CHEMICALS & BIOCHEMICALS: OXETANE

18/3,DE/15 (Item 15 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007570439 BIOSIS NO.: 199141083065
SYNTHESIS AND BIOLOGICAL ACTIVITY OF CARBOCYCLIC CLITOCINE
AUTHOR: BAXTER A D (Reprint); PENN C R; ***STORER R***; WEIR N G; WOODS J M
AUTHOR ADDRESS: DEP MEDICINAL CHEMISTRY, GLAXO GROUP RESEARCH LTD, GREENFORD, MIDDLESEX UB6 0HE, UK**UK
JOURNAL: Nucleosides and Nucleotides 10 (1-3): p393-396 1991
CONFERENCE/MEETING: PROCEEDINGS OF THE 9TH INTERNATIONAL ROUND TABLE DISCUSSION ON NUCLEOSIDES, NUCLEOTIDES, AND THEIR BIOLOGICAL APPLICATIONS, UPPSALA, SWEDEN, JULY 30-AUGUST 3, 1990. NUCLEOSIDES NUCLEOTIDES.
ISSN: 0732-8311
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 105798-74-1: CLITOCINE
DESCRIPTORS: MOUSE L1210 CELLS INFLUENZA A VIRUS 6 AMINO-5-NITRO-4-BETA-D-***RIBOFURANOSYLAMINOPYRIMIDINE*** ANTINEOPLASTIC-DRUG ANTIVIRAL-DRUG PHARMACOKINETICS
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology--Biochemistry and Molecular Biophysics; Infection; Metabolism; Pharmacology; Tumor Biology
BIOSYSTEMATIC NAMES: Orthomyxoviridae--Negative Sense ssRNA Viruses, Viruses, Microorganisms; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
COMMON TAXONOMIC TERMS: Microorganisms; Negative Sense Single-Stranded RNA Viruses; Viruses; Animals; Chordates; Mammals; Nonhuman Vertebrates ; Nonhuman Mammals; Rodents; Vertebrates
CHEMICALS & BIOCHEMICALS: CLITOCINE

18/3,DE/16 (Item 16 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007527497 BIOSIS NO.: 199141040123
IMPROVED ***SYNTHESIS*** OF LEVO CARBOVIR GR-90352X A POTENT AND SELECTIVE INHIBITOR OF HIV-1 IN-VITRO

BOOK TITLE: ST. GEORGIEV, V. AND J. J. MCGOWAN (ED.). ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, VOL. 616. AIDS: ANTI-HIV AGENTS, THERAPIES, AND VACCINES; SECOND INTERNATIONAL CONFERENCE ON DRUG RESEARCH IN IMMUNOLOGIC AND INFECTIOUS DISEASES: ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS), ARLINGTON, VIRGINIA, USA, NOVEMBER 6-9, 1989. XV+634P. NEW YORK ACADEMY OF SCIENCES: NEW YORK, NEW YORK, USA. ILLUS
AUTHOR: JONES M F (Reprint); MO C L; MYERS P L; PATERNOSTER I L; ***STORER*** *** R***; WEINGARTEN G G; WILLIAMSON C
AUTHOR ADDRESS: MICROBIOL CHEM DEP, GLAXO GROUP RES, GREENFORD, MIDDLESEX UB6 0HE, UK**UK
SERIES TITLE: Annals of the New York Academy of Sciences p535-537 1990
ISSN: 007-8923 ISBN: 0-89766-631-3 (CLOTH); 0-89766-632-1 (PAPER)
DOCUMENT TYPE: Book; Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 120443-30-3:: LEVO
DESCRIPTORS: MT4 CELLS HUMAN IMMUNODEFICIENCY VIRUS CARBOCYCLIC ***NUCLEOSIDE*** ANTIVIRAL-DRUG
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Infection; Microbiology; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms; Vertebrata--Chordata, Animalia
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses; Animals; Chordates; Nonhuman Vertebrates; Vertebrates
CHEMICALS & BIOCHEMICALS: LEVO

18/3,DE/17 (Item 17 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007499476 BIOSIS NO.: 199141012102
SYNTHESIS OF SOME MIMICS OF ***NUCLEOSIDE*** TRIPHOSPHATES
AUTHOR: COE D M (Reprint); HILPERT H; NOBLE S A; PEEL M R; ROBERTS S M; **STORER R**
AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, STOCKER RD, EXETER, DEVON EX4 4QD, UK**UK
JOURNAL: Journal of the Chemical Society Chemical Communications (5): p 312-314 1991
ISSN: 0022-4936
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 14127-68-5D: TRIPHOSPHATES
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS ANTIVIRAL-DRUG ENZYME INHIBITOR-DRUG REVERSE TRANSCRIPTASE
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Enzymology--Biochemistry and Molecular Biophysics; Infection; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses
CHEMICALS & BIOCHEMICALS: TRIPHOSPHATES

18/3,DE/18 (Item 18 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007410301 BIOSIS NO.: 199140053192
TETRAHYDROTHIOPHENE ***NUCLEOSIDES*** AS POTENTIAL ANTI-HIV AGENTS
AUTHOR: JONES M F (Reprint); NOBLE S A; ROBERTSON C A; ***STORER R***
AUTHOR ADDRESS: MED CHEM, GLAXO GROUP RES LTD, GREENFORD, MIDDLESEX UB6 0HE, UK**UK

JOURNAL: Tetrahedron Letters 32 (2): p247-250 1991
ISSN: 0040-4039
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 110-01-0: TETRAHYDROTHIOPHENE
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS ***SYNTHESIS*** ANTIVIRAL-DRUG
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Microbiology; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses
CHEMICALS & BIOCHEMICALS: TETRAHYDROTHIOPHENE

18/3,DE/19 (Item 19 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007379385 BIOSIS NO.: 199140022276
SYNTHESIS OF OXETANOCIN
AUTHOR: WILSON F X (Reprint); FLEET G W J; VOGT K; WANG Y; WITTY D R; CHOI S; ***STORER R***; MYERS P L; WALLIS C J
AUTHOR ADDRESS: DYSN PERRINS LAB, OXFORD UNIV, SOUTH PARKS RD, OXFORD OX1 3QY, UK**UK
JOURNAL: Tetrahedron Letters 31 (47): p6931-6934 1990
ISSN: 0040-4039
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
REGISTRY NUMBERS: 103913-16-2: OXETANOCIN; 503-30-0: OXETANE
DESCRIPTORS: POTENTIAL ANTIVIRAL AGENT OXETANE-BASED ***NUCLEOSIDE***
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Pharmacognosy--Pharmacology; Pharmacology
CHEMICALS & BIOCHEMICALS: OXETANOCIN; OXETANE

18/3,DE/20 (Item 20 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0006925306 BIOSIS NO.: 199038103197
SYNTHESIS OF COMPOUNDS ACTIVE AGAINST HIV PART 2. ***PREPARATIONS*** OF SOME 2' 3' DIDEOXY-6'-FLUOROCARBOCYCLIC ***NUCLEOSIDES***
AUTHOR: COE D M (Reprint); MYERS P L; PARRY D M; ROBERTS S M; ***STORER*** *** R***
AUTHOR ADDRESS: DEP CHEM, EXETER UNIV, EXETER, DEVON EX4 4QD, UK**UK
JOURNAL: Journal of the Chemical Society Chemical Communications (2): p 151-153 1990
ISSN: 0022-4936
DOCUMENT TYPE: Article
RECORD TYPE: Citation
LANGUAGE: ENGLISH
DESCRIPTORS: HUMAN IMMUNODEFICIENCY VIRUS
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Microbiology; Pharmacology
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing Viruses, Viruses, Microorganisms
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses; Microorganisms; Viruses

18/3,DE/21 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE
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13543450 EMBASE No: 2005578657
A short and novel ***synthesis*** of carbocyclic ***nucleosides*** and 4prime-epi-carbocyclic ***nucleosides*** from 2-cyclopenten-1-ones
Gosselin G.; Griffe L.; Meillon J.-C.; ***Storer R.***
J.-C. Meillon, Laboratoire Cooperatif Idenix-CNRS-UM II, Universite Montpellier II, Pl. E.-Bataillon, case courrier 008, F-34095 Montpellier Cedex 5 France
AUTHOR EMAIL: meillon.jean-christophe@idenix.com
Tetrahedron (TETRAHEDRON) (United Kingdom) 30 JAN 2006, 62/5 (906-914)
CODEN: TETRA ISSN: 0040-4020
PUBLISHER ITEM IDENTIFIER: S0040402005018727
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 39
DRUG DESCRIPTORS:
****nucleoside*** derivative--drug development--dv; *cyclopentene derivative
unclassified drug
MEDICAL DESCRIPTORS:
molecule; laboratory; methodology; drug ***synthesis***; chemical procedures; nonhuman; article; priority journal

18/3,DE/22 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
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13413651 EMBASE No: 2005461030
Rapid access to 2prime-branched-carbocyclic ***nucleosides*** and their 4prime-epimers from 2-alkyl-cyclopentene-1-ones
Meillon J.-C.; Griffe L.; ***Storer R.***; Gosselin G.
G. Gosselin, Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II, Place Eugene Bataillon, 34095 Montpellier Cedex 5 France
AUTHOR EMAIL: gosselin@univ-montp2.fr
Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES NUCLEIC ACIDS) (United States) 2005, 24/5-7 (695-699)
CODEN: NNNAF ISSN: 1525-7770
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 17
DRUG DESCRIPTORS:
*carbocyclic ***nucleoside***; *cyclopentene derivative
unclassified drug
MEDICAL DESCRIPTORS:
*epimer
synthesis; reaction analysis; alkylation; conference paper

18/3,DE/23 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE
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13413645 EMBASE No: 2005461024
Synthesis* of 2prime-C-methyl-beta-D-***ribofuranosylimidazo**[4,5-d]-pyridazine derivatives (2-aza-3-deazapurine ***nucleoside*** analogues)
Leroy F.; Dukhan D.; Durka M.; Chaves D.; Bragnier N.; ***Storer R.***; Gosselin G.
G. Gosselin, Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II, Place Eugene Bataillon, Case Courrier 008, 34095 Montpellier Cedex 5 France
AUTHOR EMAIL: gosselin@univ-montp2.fr
Nucleosides, Nucleotides and Nucleic Acids (NUCLEOSIDES NUCLEOTIDES

NUCLEIC ACIDS) (United States) 2005, 24/5-7 (667-669)
CODEN: NNNAF ISSN: 1525-7770
DOCUMENT TYPE: Journal ; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 14
DRUG DESCRIPTORS:
*ribose--drug analysis--an; *ribose--drug development--dv; *ribose --pharmacology--pd; *imidazole derivative--drug analysis--an; *imidazole derivative--drug development--dv; *imidazole derivative--pharmacology--pd; *pyridazine derivative--drug analysis--an; *pyridazine derivative--drug development--dv; *pyridazine derivative--pharmacology--pd; *heterocyclic compound--drug analysis--an; *heterocyclic compound--drug development--dv; *heterocyclic compound--pharmacology--pd; *purine derivative--drug analysis --an; *purine derivative--drug development--dv; *purine derivative --pharmacology--pd; ****nucleoside*** derivative--drug analysis--an; * ***nucleoside*** derivative--drug development--dv; ****nucleoside*** derivative--pharmacology--pd
methyl group--drug analysis--an; methyl group--drug development--dv; methyl group--pharmacology--pd; antivirus agent--drug analysis--an; antivirus agent--drug development--dv; antivirus agent--pharmacology--pd
MEDICAL DESCRIPTORS:
drug ***synthesis***; reaction analysis; antiviral activity; drug screening ; structure activity relation; nonhuman; conference paper

18/3,DE/24 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE
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06598763 EMBASE No: 1996263470
Naphthalene, phenanthrene, and pyrene as DNA base analogues: ***Synthesis***, structure, and fluorescence in DNA
Ren R.X.-F.; ***Chaudhuri N.C.***; Paris P.L.; Rumney IV S.; Kool E.T.
Department of Chemistry, University of Rochester,Rochester, NY 14627 United States
Journal of the American Chemical Society (J. AM. CHEM. SOC.) (United States) 1996, 118/33 (7671-7678)
CODEN: JACSA ISSN: 0002-7863
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*polycyclic aromatic hydrocarbon derivative--drug toxicity--to
MEDICAL DESCRIPTORS:
*dna structure; *dna ***synthesis***
article; fluorescence; nuclear magnetic resonance

18/3,DE/25 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2006 Elsevier B.V. All rts. reserv.

06179566 EMBASE No: 1995215527
Erratum: An efficient method for the ***synthesis*** of aromatic C-***nucleosides*** (Tetrahedron Letters (1995) 36 (1795-1798))
Chaudhuri N.C.*; Kool E.T.**
Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1995, 36/28 (4910)
CODEN: TELEA ISSN: 0040-4039
DOCUMENT TYPE: Journal; Erratum
LANGUAGE: ENGLISH
MEDICAL DESCRIPTORS:
error
erratum

18/3,DE/26 (Item 6 from file: 73)
DIALOG(R)File 73:EMBASE

05601992 EMBASE No: 1994014266
Synthesis* and anti-HIV-1 activity of a series of imidazo(1,5-b)pyridazines**
Livermore D.G.H.; Bethell R.C.; Cammack N.; Hancock A.P.; Hann M.M.; Green D.V.S.; Lamont R.B.; Noble S.A.; Orr D.C.; Payne J.J.; Ramsay M.V.J.; Shingler A.H.; Smith C.; ***Storer R.*; Williamson C.; Willson T.**
Computational Chemistry Group, Medicinal Chemistry II Department, Glaxo Group Research Ltd., Greenford Road,Greenford, Middlesex United Kingdom
Journal of Medicinal Chemistry (J. MED. CHEM.) (United States) 1993, 36/24 (3784-3794)
CODEN: JMCMA ISSN: 0022-2623
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
***antivirus agent--drug analysis--an; *antivirus agent--drug development--dv ; *antivirus agent--pharmacology--pd**
zidovudine; unclassified drug
MEDICAL DESCRIPTORS:
antiviral activity; *drug ***synthesis; *human immunodeficiency virus infection**
animal cell; article; cell growth; controlled study; crystal structure; drug binding site; drug mechanism; drug structure; enzyme inhibition; growth inhibition; nonhuman; structure activity relation; virus replication ; X ray crystallography

18/3,DE/27 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE

04902615 EMBASE No: 1992042830
Synthesis* and biological evaluation of carbocyclic analogues of ribavirin**
Noble S.A.; Beddall N.E.; Beveridge A.J.; Marr C.L.P.; Mo C.L.; Myers P.L.; Penn C.R.; ***Storer R.*; Woods J.M.**
Department of Medicinal Chemistry, Glaxo Group Research Ltd., Greenford, Middlesex UB6 OHE United Kingdom
Nucleosides and Nucleotides (NUCLEOSIDES NUCLEOTIDES) (United States) 1991, 10/1-3 (487-490)
CODEN: NUNUD ISSN: 0732-8311
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
acyclic ***nucleoside--drug comparison--cm; *acyclic ***nucleoside --drug analysis--an; *acyclic ***nucleoside***--drug development--dv; * ribavirin derivative--drug comparison--cm; *ribavirin derivative--drug analysis--an; *ribavirin derivative--drug development--dv**
adenosine kinase--endogenous compound--ec; inosinate dehydrogenase --endogenous compound--ec; ribavirin--drug comparison--cm; rna polymerase --endogenous compound--ec
MEDICAL DESCRIPTORS:
***enzyme inhibition; *influenza virus a**
animal cell; animal tissue; article; drug ***synthesis*; leukemia l 1210; liver; mouse; rat**

18/3,DE/28 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE

04709095 EMBASE No: 1991202449
Approach to oxetane and furan ***nucleosides* with an anomeric carbon substituent: Nucleophilic substitution at highly hindered alpha-bromo-oxetane- and -tetrahydrofuran-carboxylates**
Choi S.; Witty D.R.; Fleet G.W.J.; Myers P.L.; ***Storer R.*; Wallis**

C.J.; Watkin D.; Pearce L.
Dyson Perrins Laboratory, Oxford University, South Parks Road,Oxford OX1 3QY United Kingdom
Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/29 (3569-3572)
CODEN: TELEA ISSN: 0040-4039
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*furan derivative--drug analysis--an; *furan derivative--drug development --dv; ****nucleoside***--drug analysis--an; ****nucleoside***--drug development--dv; *oxetane derivative--drug analysis--an; *oxetane derivative--drug development--dv
MEDICAL DESCRIPTORS:
*chemical structure; ****synthesis***
article; crystallography; priority journal

18/3,DE/29 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE
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04613105 EMBASE No: 1991107148
Synthesis* of some mimics of uecleoside triphosphates**
Coe D.M.; Hilpert H.; Noble S.A.; Peel M.R.; Roberts S.M.; ***Storer ***R.***
Department of Chemistry, Exeter University, Stocker Road, Exeter EX4 4QD United Kingdom
Journal of the Chemical Society - Series Chemical Communications (J. CHEM. SOC. SER. CHEM. COMMUN.) (United Kingdom) 1991, -/5 (312-314)
CODEN: JCCCA ISSN: 0022-4936
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*nucleotide--drug analysis--an; *nucleotide--drug development--dv; * phosphonic acid derivative--drug analysis--an; *phosphonic acid derivative --drug development--dv
unclassified drug
MEDICAL DESCRIPTORS:
****synthesis***
article

18/3,DE/30 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE
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04606896 EMBASE No: 1991100939
Oxetane ***nucleosides*** with fluorine and azide substituents: Nucleophilic displacements on an oxetane ring
Wang Y.; Fleet G.W.J.; Wilson F.X.; ***Storer R.***; Myers P.L.; Wallis C.J.; Doherty O.; Watkin D.J.; Vogt K.; Witty D.R.; Peach J.M.
Dyson Perrins Laboratory, Oxford University, South Parks Road,Oxford OX1 3QY United Kingdom
Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/13 (1675-1678)
CODEN: TELEA ISSN: 0040-4039
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*antivirus agent--drug comparison--cm; *antivirus agent--drug analysis--an; *antivirus agent--drug development--dv; ****nucleoside***--drug analysis --an; ****nucleoside***--drug development--dv; ****nucleoside***--drug comparison--cm; *oxetane derivative--drug development--dv; *oxetane derivative--drug analysis--an; *oxetane derivative--drug comparison--cm oxetanocin--drug comparison--cm; unclassified drug
MEDICAL DESCRIPTORS:

*antiviral activity; *drug ***synthesis***; *human immunodeficiency virus
article; nonhuman; priority journal

18/3,DE/31 (Item 11 from file: 73)
DIALOG(R)File 73:EMBASE

04539613 EMBASE No: 1991033656
Synthesis* of (+/-)-2'-oxa-carbocyclic-2',3'-dideoxynucleosides as potential anti-HIV agents**
Bamford M.J.; Humber D.C.; ***Storer R.
Department of Medicinal Chemistry, Glaxo Group Research Ltd., Greenford, Middlesex UB6 0HE United Kingdom
Tetrahedron Letters (TETRAHEDRON LETT.) (United Kingdom) 1991, 32/2 (271-274)
CODEN: TELEA ISSN: 0040-4039
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*2',3' dideoxynucleoside--drug analysis--an; *2',3' dideoxynucleoside--drug development--dv; *antivirus agent--drug analysis--an; *antivirus agent --drug development--dv; ****nucleoside***--drug analysis--an; * ***nucleoside***--drug development--dv
MEDICAL DESCRIPTORS:
*antiviral activity; *drug ***synthesis***; *human immunodeficiency virus article; cell culture; drug structure; nonhuman; priority journal

18/3,DE/32 (Item 12 from file: 73)
DIALOG(R)File 73:EMBASE

04134522 EMBASE No: 1990017064
Synthesis* of compounds active against HIV: ***Preparation*** of 6'-fluorocarbocyclic AZT (AZT = 3'-deoxy-3'-azidothymidine)**
Fletcher C.A.; Hilpert H.; Myers P.L.; Roberts S.M.; ***Storer R.
Department of Chemistry, Exeter University, Exeter EX4 4QD United Kingdom
Journal of the Chemical Society - Series Chemical Communications (J. CHEM. SOC. SER. CHEM. COMMUN.) (United Kingdom) 1989, -/22 (1707-1709)
CODEN: JCCCA ISSN: 0022-4936
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH
DRUG DESCRIPTORS:
*rna directed dna polymerase; *carbocyclic ***nucleoside***--drug analysis --an; *carbocyclic ***nucleoside***--drug development--dv; *carbocyclic ***nucleoside***--drug comparison--cm; *zidovudine--drug analysis--an; * zidovudine--drug development--dv; *zidovudine--drug comparison--cm; * zidovudine 5' triphosphate--drug analysis--an; *zidovudine 5' triphosphate --drug development--dv; *zidovudine 5' triphosphate--drug comparison--cm unclassified drug
MEDICAL DESCRIPTORS:
*drug screening; *drug ***synthesis***; *human immunodeficiency virus cell culture; nuclear magnetic resonance; nonhuman; article

18/3,DE/33 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

11859030 PASCAL No.: 95-0022487
Synthesis* of some carbocyclic ***nucleoside*** analogues based on a bicyclo(3.1.0)hexane ring system**
GOODING H; ROBERTS S M; ***STORER R
Exeter univ., dep. chemistry, Devon EX4 4QD, United Kingdom
Journal: Journal of the Chemical Society. Perkin transactions. I, 1994 (

14) 1891-1892
Language: English

English Descriptors: Pyrimidine ***nucleoside***; Purine nucleotide; Analog ; Bicyclic compound; Secondary alcohol; Thymine-ENT

French Descriptors: Pyrimidine ***nucleoside***; Purine nucleotide; Analogue; Compose bicyclique; Alcool secondaire; Thymine-ENT; Bicyclo (3.1.0) hexan-6-ol(3-hydroxy) benzoate; Purine(2,6-dichloro)-ENT; Guanine(9-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN; Adenine(9-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN; Thymine(1-(6-(hydroxymethyl) bicyclo (3.1.0) hex-3-yl))-FIN

Spanish Descriptors: Pirimidina ***nucleosido***; Purina nucleotido; Analogo; Compuesto biciclico; Alcohol secundario; Timina-ENT

18/3,DE/34 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal

11282940 PASCAL No.: 94-0102516
Synthesis* of optically active 5'-noraristeromycin : enzyme-catalysed kinetic resolution of 9-(4-hydroxycyclopent-2-enyl)purines**
MERLO V; REECE F J; ROBERTS S M; GREGSON M; ***STORER R
Exeter univ., dep. chemistry, Exeter Devon EX4 4QD, United Kingdom
Journal: Journal of the Chemical Society. Perkin transactions. I, 1993 (15) 1717-1718
Language: English

English Descriptors: Acetylation; Enantioselectivity; Enzymatic reaction; Triacylglycerol lipase; Purine ***nucleoside***; Analog; Monocyclic compound; Ethylenic compound; Secondary alcohol; Optical activity; Dideoxynucleoside

French Descriptors: Acetylation; Enantioselectivite; Reaction enzymatique; Triacylglycerol lipase; Purine ***nucleoside***; Analogue; Compose monocyclique; Compose ethylenique; Alcool secondaire; Activite optique; 6-Oxabicyclo (3.1.0) hex-2-ene-ENT; Purine(6-chloro)-ENT; Purine(6-chloro-9-(4-hydroxycyclopent-2-enyl)); Purine(9-(4-acetoxycyclopent-2-enyl)-6-chloro)-FIN; Acetique acide ester vinyle-ENT; Adenine(9-(4-acetoxycyclopent-2-enyl))-FIN; Didesoxynucleoside

Spanish Descriptors: Acetilacion; Enantioselectividad; Reaccion enzimatica; Triacylglycerol lipase; Purina ***nucleosido***; Analogo; Compuesto monociclico; Compuesto etilenico; Alcohol secundario; Actividad optica

18/3,DE/35 (Item 3 from file: 144)
DIALOG(R)File 144:Pascal

10699954 PASCAL No.: 93-0209253
The potential of carbocyclic ***nucleosides*** for the treatment of AIDS : ***synthesis*** of some diphosphorylphonates possessing potent activity against HIV-coded reverse transcriptase
COE D M; ROBERTS S M; ***STORER R***
Exeter univ., dep. chemistry, Exeter Devon EX4 4QD, United Kingdom
Journal: Perkin transactions. 1, 1992 (20) 2695-2704
Language: English

English Descriptors: Purine nucleotide; Pyrimidine nucleotide; Analog; Ammonium Compounds; Triphosphates; Organic phosphonate; Monocyclic compound; Ethylenic compound; Biological activity; Antiviral; In vitro; Human immunodeficiency virus; Dideoxynucleotide

French Descriptors: Purine nucleotide; Pyrimidine nucleotide; Analogue; Ammonium Compose; Triphosphate; Phosphonate organique; Compose monocyclique; Compose ethylenique; Activite biologique; Antiviral; In vitro; Virus immunodeficience humaine; Thymine(1-(3-(triphosphonomethoxy) cyclopentyl))-FIN; Guanine(9-(4-(triphosphonomethoxy) cyclopent-2-enyl))-FIN; 6-Oxabicyclo (3.1.0) hex-2-ene-ENT; Thymine(1-(4-(phosphonomethoxy) cyclopent-2-enyl))-FIN; Guanine(9-(3-phosphonomethoxy) cyclopentyl))-FIN; Didesoxynucleotide

Spanish Descriptors: Purina nucleotido; Pirimidina nucleotido; Analogo; Amonio Compuesto; Trifosfato; Fosfonato organico; Compuesto monociclico; Compuesto etilenico; Actividad biologica; Antiviral; In vitro; Human immunodeficiency virus

18/3,DE/36 (Item 4 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

09812941 PASCAL No.: 92-0015271
The potential for using carboxylic ***nucleosides*** for the treatment of AIDS. I, ***Preparation*** of some analogues for azidothymidine (AZT)
HIGHCOCK R M; HILPERT H; MYERS P L; ROBERTS S M; ***STORER R***
Glaxo group res., dep. analytical chemistry, Greenford Middx. UB6 0HE, United Kingdom
Journal: Perkin transactions. 1, 1991 (5) 1127-1134
Language: English

English Descriptors: Pyrimidine ***nucleoside***; Pyrimidine nucleotide; Analog; Cyclitol; Organic azide; Biological activity; Antiviral; Human immunodeficiency virus; X ray diffraction; Crystalline structure; Molecular structure; Experimental study; Organic compounds

French Descriptors: Pyrimidine ***nucleoside***; Pyrimidine nucleotide; Analogue; Cyclitol; Azide; Activite biologique; Antiviral; Virus immunodeficience humaine; Diffraction RX; Structure cristalline; Structure moleculaire; Etude experimentale; Compose organique; Triphosphate organique; Thymine(1-(3-azido-5-fluoro-4-(hydroxymethyl) cyclopentyl)); Thymine(1-(2,4-difluoro-4-(hydroxymethyl) cyclopentyl))
Spanish Descriptors: Pirimidina ***nucleosido***; Pirimidina nucleotido; Analogo; Ciclitol; Azida organica; Actividad biologica; Antiviral; Human immunodeficiency virus; Difraccion RX; Estructura cristalina; Estructura molecular; Estudio experimental; Compuesto organico

Other Descriptors: Roentgenbeugung; Kristallstruktur; Experimentelle Untersuchung; Organische Verbindung

18/3,DE/37 (Item 5 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2006 INIST/CNRS. All rts. reserv.

09563823 PASCAL No.: 91-0354253
Attempted ring contraction of alpha -triflates of 3-azido- and 3-fluoro-gamma -lactones to oxetanes
ELLIOTT R P; FLEET G W J; VOGT K; WILSON F X; WANG Y; WITTY D R; ***STORER R***; MYERS P L; WALLIS C J
Oxford univ., Dyson Perrins lab., Oxford OX1 3QY, United Kingdom
Journal: Petrahedron: asymmetry, 1990, 1 (10) 715-718
Language: English

English Descriptors: Ring contraction; Organic azide; ***Nucleoside***; Ethylenic compound; Monocyclic compound; Oxygen heterocycle; Fluorine Organic compounds; Silicon Organic compounds; Lactone

French Descriptors: Contraction cycle; Azide; ***Nucleoside***; Compose ethylenique; Compose monocyclique; Heterocycle oxygene; Fluor Compose

organique; Silicium Compose organique; Lactone; Oxetane derive-FIN; Furan-2-one(5-benzyloxymethyl-perhydro-2-trifluoromesyl)-ENT

Spanish Descriptors: Contraccion ciclo; Azida organica; ***Nucleosido***; Compuesto etilenico; Compuesto monociclico; Heterociclo oxigeno; Fluor; Silicio; Lactona

18/3,DE/38 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2006 Dialog. All rts. reserv.

19569054 PMID: 16247991
Synthesis* of 2'-C-methyl-4'-thio ribonucleosides.**
Dukhan D; Bosc E; Peyronnet J; ***Storer R*; Gosselin G**
Laboratoire Cooperatif Idenix-CNRS, Universite Montpellier II, Montpellier Cedex 5, France.
Nucleosides, nucleotides & nucleic acids (United States) 2005, 24 (5-7) p577-80, ISSN 1525-7770--Print Journal Code: 100892832
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Descriptors: *Deoxycytidine--analogs and derivatives--AA; *Thionucleosides--chemistry--CH; Antiviral Agents--pharmacology--PD; Carbohydrate Conformation; Carbohydrate Sequence; Deoxycytidine--pharmacology--PD; Models, Chemical; ***Nucleosides*--chemistry--CH; RNA Viruses--genetics--GE; Thionucleosides--chemical ***synthesis***--CS**

18/3,DE/39 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

06543060
1,3-OXATHIOLANE ***NUCLEOSIDE*** ANALOG

PUB. NO.: 2000-128787 [JP 2000128787 A]
PUBLISHED: May 09, 2000 (20000509)
INVENTOR(s): JONATHAN ALAN VICTOR COATES
MUTTON IAN MARTIN
CHARLES RICHARD PENN
STORER RICHARD
WILLIAMSON CHRISTOPHER
APPLICANT(s): BIOCHEM PHARMA INC
APPL. NO.: 11-300923 [JP 99300923]
Division of 10-162127 [JP 98162127]
FILED: May 02, 1991 (19910502)
PRIORITY: 9009861 [GB 909861], GB (United Kingdom), May 02, 1990 (19900502)

18/3,DE/40 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2006 JPO & JAPIO. All rts. reserv.

06138613
1,3-OXATHIOLANE ***NUCLEOSIDE*** ANALOG

PUB. NO.: 11-080153 [JP 11080153 A]
PUBLISHED: March 26, 1999 (19990326)
INVENTOR(s): JONATHAN ALAN VICTOR COATES
MUTTON IAN MARTIN
CHARLES RICHARD PENN
STORER RICHARD
WILLIAMSON CHRISTOPHER

APPLICANT(s): BIOCHEM PHARMA INC
APPL. NO.: 10-162127 [JP 98162127]
FILED: June 10, 1998 (19980610)
PRIORITY: 9009861 [GB 909861], GB (United Kingdom), May 02, 1990 (19900502)

18/3,DE/41 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0015699890
WPI ACC NO: 2006-263877/200627
XRAM Acc No: C2006-085984
New modified ***nucleosides*** useful for treatment of prophylaxis of flavivirus, pestivirus and hepacivirus infection e.g. hepatitis C virus, are virus polymerase inhibitors
Patent Assignee: CENT NAT RECH SCI (CNRS); IDENIX CAYMAN LTD (IDEN-N)
Inventor: EGAN J; GOSSELIN G; SOMMADOSSI J; ***STORER R***
1 patents, 110 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2006037028	A2	20060406	WO 2005US34786	A	20050926	200627	B

Priority Applications (no., kind, date): US 2004613085 P 20040924

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2006037028	A2	EN	73	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU LV MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

18/3,DE/42 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0015525789
WPI ACC NO: 2006-089938/200609
XRAM Acc No: C2006-032452
Use of 5-aza-7-deazapurine derivatives for treating e.g. flavivirus infections, hepatitis C virus infections and HIV infection
Patent Assignee: CENT NAT RECH SCI (CNRS); DUKHAN D (DUKH-I); GOSSELIN G (GOSS-I); IDENIX CAYMAN LTD (IDEN-N); LA COLLA P (LCOL-I); LEROY F (LERO-I); SEELA F (SEEL-I); STORER R (STOR-I); UNIV CAGLIARI (UYCA-N); UNIV OSNABRUCK LAB ORGANIC & BIORGANIC (UYOS-N)
Inventor: DUKHAN D; GOSSELIN G; LA COLLA P; LEROY F; SEELA F; ***STORER*** *** R***
2 patents, 109 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2006000922	A2	20060105	WO 2005IB2768	A	20050623	200609	B
US 20060040944	A1	20060223	US 2004582182	P	20040623	200615	E
			US 2005166498	A	20050623		

Priority Applications (no., kind, date): US 2005166498 A 20050623; US 2004582182 P 20040623

Patent Details
Number Kind Lan Pg Dwg Filing Notes
WO 2006000922 A2 EN 115 0
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IS IT KE LS LT LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
US 20060040944 A1 EN Related to Provisional US 2004582182

18/3,DE/43 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0014784721
WPI ACC NO: 2005-132404/200514
XRAM Acc No: C2005-043642
New beta-D- and beta-L-***nucleoside*** analogues used for treating host infected with flavivirus (flaviviridae) or pestivirus including hepatitis C virus
Patent Assignee: CENT NAT RECH SCI (CNRS); CNRS CENT NAT RECH SCI (CNRS); DUKHAN D (DUKH-I); GOSSELIN G (GOSS-I); IDENIX CAYMAN LTD (IDEN-N); LEROY F (LERO-I); STORER R (STOR-I); UNIV MONTPELLIER (UYMO-N); UNIV MONTPELLIER II (UYMO-N)
Inventor: DUKHAN D; DURKHAN D; GOSSELIN G; LEROY F; ***STORER R***
5 patents, 107 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2005009418	A2	20050203	WO 2004IB2703	A	20040726	200514	B
US 20050075309	A1	20050407	US 2003490216	P	20030725	200525	E
			US 2004900008	A	20040726		
EP 1658302	A2	20060524	EP 2004744307	A	20040726	200635	E
			WO 2004IB2703	A	20040726		
NO 200600914	A	20060425	NO 2006914	A	20060224	200637	E
AU 2004258750	A1	20050203	AU 2004258750	A	20040726	200660	E

Priority Applications (no., kind, date): US 2003490216 P 20030725; US 2004900008 A 20040726

Patent Details
Number Kind Lan Pg Dwg Filing Notes
WO 2005009418 A2 EN 139 3
National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
US 20050075309 A1 EN Related to Provisional US 2003490216
EP 1658302 A2 EN PCT Application WO 2004IB2703
Based on OPI patent WO 2005009418
Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR
AU 2004258750 A1 EN Based on OPI patent WO 2005009418

18/3,DE/44 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0013998993
WPI ACC NO: 2004-180195/200417
Related WPI Acc No: 2004-122412; 2004-132680; 2004-480899; 2005-214393; 2006-545893
XRAM Acc No: C2004-071157
New 1',2',3' or 4'-branched beta-D or beta-L ***nucleoside*** prodrugs useful for treating Flaviviridae virus infection e.g. hepatitis C virus infection in a host
Patent Assignee: CENT NAT RECH SCI (CNRS); CNRS CENT NAT RECH SCI (CNRS); IDENIX CAYMAN LTD (IDEN-N); UNIV CAGLIARI (UYCA-N); UNIV STUDI CAGLIARI (UYCA-N)
Inventor: GOSSELIN G; LA COLLA P; SOMMADOSSI J; ***STORER R***
6 patents, 104 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2004003000	A2	20040108	WO 2003IB3901	A	20030627	200417	B
AU 2003263412	A1	20040119	AU 2003263412	A	20030627	200447	E
EP 1525209	A2	20050427	EP 2003761749	A	20030627	200529	E
			WO 2003IB3901	A	20030627		
NO 200500466	A	20050323	WO 2003IB3901	A	20030627	200540	E
			NO 2005466	A	20050127		
JP 2005537242	W	20051208	WO 2003IB3901	A	20030627	200580	E
			JP 2004517162	A	20030627		
MX 2004012779	A1	20050901	WO 2003IB3901	A	20030627	200615	E
			MX 200412779	A	20041216		

Priority Applications (no., kind, date): US 2003466194 P 20030428; US 2002392350 P 20020628; US 2002392351 P 20020628; US 2003470949 P 20030514

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2004003000	A2	EN	498	22	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Regional Designated States,Original: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003263412	A1	EN		Based on OPI patent WO 2004003000
EP 1525209	A2	EN		PCT Application WO 2003IB3901
				Based on OPI patent WO 2004003000

Regional Designated States,Original: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

NO 200500466	A	NO		PCT Application WO 2003IB3901
JP 2005537242	W	JA	445	PCT Application WO 2003IB3901
				Based on OPI patent WO 2004003000
MX 2004012779	A1	ES		PCT Application WO 2003IB3901
				Based on OPI patent WO 2004003000

18/3,DE/45 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0010966220
WPI ACC NO: 2001-589740/200166
XRAM Acc No: C2001-174824
Use of ***nucleoside*** analogs for treating or preventing Flavivirus infections, particularly hepatitis C
Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); CHENG Y (CHEN-I); ISMAILI H

M A (ISMA-I); LAVALLEE J (LAVA-I); SHIRE BIOCHEM INC (SHIR-N); SIDDIQUI A (SIDD-I); STORER R (STOR-I)
Inventor: ALAOUI-ISHMAILI M; ALAOUI-ISMAHILI M; ALAOUI-ISMAILI M; CHENG Y; CHENG Y X; ISMAILI H M A; LAVALLEE J; LAVALLEE J F; SIDDIQUI A; SIDDIQUI M A; ***STORER R***
16 patents, 93 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2001060315	A2	20010823	WO 2001CA197	A	20010219	200166	B
AU 200135278	A	20010827	AU 200135278	A	20010219	200176	E
US 20020019363	A1	20020214	US 2000183349	P	20000218	200214	E
			US 2001785235	A	20010220		
NO 200203884	A	20021017	WO 2001CA197	A	20010219	200281	E
			NO 20023884	A	20020816		
EP 1296690	A2	20030402	EP 2001907276	A	20010219	200325	E
			WO 2001CA197	A	20010219		
KR 2003005197	A	20030117	KR 2002710760	A	20020819	200334	E
CZ 200202825	A3	20030514	WO 2001CA197	A	20010219	200337	E
			CZ 20022825	A	20010219		
SK 200201192	A3	20030603	WO 2001CA197	A	20010219	200345	E
			SK 20021192	A	20010219		
JP 2003523978	W	20030812	JP 2001559414	A	20010219	200355	E
			WO 2001CA197	A	20010219		
CN 1427722	A	20030702	CN 2001808127	A	20010219	200361	E
HU 200301112	A2	20030828	WO 2001CA197	A	20010219	200363	E
			HU 20031112	A	20010219		
MX 2002008078	A1	20021201	WO 2001CA197	A	20010219	200377	E
			MX 20028078	A	20020819		
ZA 200206506	A	20040128	ZA 20026506	A	20020814	200420	E
US 6784161	B2	20040831	US 2000183349	P	20000218	200457	E
			US 2001785235	A	20010220		
NZ 521210	A	20041126	NZ 521210	A	20010219	200479	E
			WO 2001CA197	A	20010219		
US 20040248844	A1	20041209	US 2000183349	P	20000218	200481	E
			US 2001785235	A	20010220		
			US 2004887292	A	20040709		

Priority Applications (no., kind, date): US 2004887292 A 20040709; US 2001785235 A 20010220; US 2000183349 P 20000218

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2001060315	A2	EN	51	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200135278	A	EN		Based on OPI patent WO 2001060315
US 20020019363	A1	EN		Related to Provisional US 2000183349
NO 200203884	A	NO		PCT Application WO 2001CA197
EP 1296690	A2	EN		PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315

Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

CZ 200202825	A3	CS		PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315
SK 200201192	A3	SK		PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315
JP 2003523978	W	JA	57	PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315
HU 200301112	A2	HU		PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315
MX 2002008078	A1	ES		PCT Application WO 2001CA197
				Based on OPI patent WO 2001060315

ZA 200206506 A EN 60
US 6784161 B2 EN Related to Provisional US 2000183349
NZ 521210 A EN PCT Application WO 2001CA197
Based on OPI patent WO 2001060315
US 20040248844 A1 EN Related to Provisional US 2000183349
Continuation of application US
2001785235
Continuation of patent US 6784161

18/3,DE/46 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0010833720
WPI ACC NO: 2001-451356/200148
XRAM Acc No: C2001-136177
Use of ***nucleoside*** analogs for treating or preventing Flaviviridae viral infection, e.g. hepatitis C, or inhibiting or reducing the activity of viral polymerase
Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); VIROCHEM PHARMA INC (VIRO-N)
Inventor: ***STORER R***
5 patents, 93 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 2001032153	A2	20010510	WO 2000CA1316	A	20001103	200148	B
AU 200112620	A	20010514	AU 200112620	A	20001103	200149	E
EP 1225899	A2	20020731	EP 2000974218	A	20001103	200257	E
			WO 2000CA1316	A	20001103		
US 6566365	B1	20030520	US 1999163394	P	19991104	200336	E
			US 1999163405	P	19991104		
			US 2000704832	A	20001103		
US 20030225037	A1	20031204	US 1999163394	P	19991104	200380	E
			US 1999163405	P	19991104		
			US 2000704832	A	20001103		
			US 2003397167	A	20030327		

Priority Applications (no., kind, date): US 2003397167 A 20030327; US 2000704832 A 20001103; US 1999163394 P 19991104; US 1999163405 P 19991104

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 2001032153	A2	EN	76	0	

National Designated States,Original: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Regional Designated States,Original: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200112620 A EN Based on OPI patent WO 2001032153
EP 1225899 A2 EN PCT Application WO 2000CA1316
Based on OPI patent WO 2001032153
Regional Designated States,Original: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
US 6566365 B1 EN Related to Provisional US 1999163394
Related to Provisional US 1999163405
US 20030225037 A1 EN Related to Provisional US 1999163394
Related to Provisional US 1999163405
Division of application US 2000704832
Division of patent US 6566365

18/3,DE/47 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0005777363
WPI ACC NO: 1991-353701/199148
XRAM Acc No: C1991-152542
(-)-Cis-4-amino-1-(2-hydroxymethyl-1,3-oxathiolanyl)-1H-pyrimidinone - useful in treating viral infections, e.g. HIV has lower cytotoxicity than (plus)-enantiomer
Patent Assignee: BIOCHEM PHARMA INC (BIOC-N); COATES J A (COAT-I); IAF BIO CHEM INT INC (IAFB-N); IAF BIOCHEM INT (IAFB-N); IAF BIOCHEM INT INC (IAFB-N); MUTTON I M (MUTT-I); PENN C R (PENN-I); SHILY BIOLOGICAL CHEM CO LTD (SHIL-N); STORER R (STOR-I); WILLIAMSON C (WILL-I)
Inventor: CHARLES R P; COATES J; COATES J A; COATES J A V; COTZ J A V; JONATHAN A V C; MARTON I A; MUTTON I; MUTTON I M; PEN C R; PENN C; PENN C R; ***STORER R***; WILLIAMSON C
43 patents, 40 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
WO 1991017159	A	19911114	WO 1991GB706	A	19910502	199148	B
AU 199177719	A	19911127				199210	E
PT 97520	A	19920131				199210	E
FI 199106165	A	19911230				199213	E
ZA 199103293	A	19920226	ZA 19913293	A	19910430	199214	E
NO 199200018	A	19920102	WO 1991GB706	A	19910502	199219	E
			NO 199218	A	19920102		
CS 199101251	A2	19920115	CS 19911251	A	19910430	199233	E
CN 1058214	A	19920129	CN 1991102778	A	19910430	199240	E
JP 5501117	W	19930304	JP 1991508513	A	19910502	199314	E
			WO 1991GB706	A	19910502		
HU 64335	T	19931228	WO 1991GB706	A	19910502	199405	E
			HU 1992302	A	19910502		
NZ 238017	A	19940627	NZ 238017	A	19910501	199426	E
AU 651345	B	19940721	AU 199177719	A	19910502	199432	E
EP 625150	A1	19941123	EP 1991920963	A	19910502	199445	E
			WO 1991GB706	A	19910502		
FI 199504183	A	19950906	WO 1991GB706	A	19910502	199548	E
			FI 19916165	A	19911230		
			FI 19954183	A	19950906		
IL 98025	A	19961016	IL 98025	A	19910502	199648	E
NO 180377	B	19961230	WO 1991GB706	A	19910502	199707	E
			NO 199218	A	19920102		
CN 1108655	A	19950920	CN 1991102778	A	19910430	199733	E
			CN 1994109429	A	19910430		
RO 112616	B1	19971128	RO 1991149033	A	19910502	199819	E
			WO 1991GB706	A	19910502		
SG 46383	A1	19980220	SG 19964002	A	19910502	199821	E
RU 2099338	C1	19971220	WO 1991GB706	A	19910502	199832	E
			SU 5010955	A	19911228		
KR 199607532	B1	19960605	WO 1991GB706	A	19910502	199919	E
			KR 1991702025	A	19911230		
JP 11080153	A	19990326	JP 1991508513	A	19910502	199923	E
			JP 1998162127	A	19910502		
JP 2927546	B2	19990728	JP 1991508513	A	19910502	199935	E
			WO 1991GB706	A	19910502		
JP 2000128787	A	20000509	JP 1998162127	A	19910502	200032	E
			JP 1999300923	A	19910502		
TW 366346	A	19990811	TW 1991102169	A	19910719	200032	E
JP 3062475	B2	20000710	JP 1991508513	A	19910502	200037	E
			JP 1998162127	A	19910502		
EP 1062950	A2	20001227	EP 1991920963	A	19910502	200102	E
			EP 2000118103	A	19910502		
MX 193792	A	19991022	MX 25621	A	19910502	200107	E
US 6180639	B1	20010130	WO 1991GB706	A	19910502	200108	E

			US 1992835964	A	19920220		
CA 2059263	C	20010410	CA 2059263	A	19910502	200124	E
			WO 1991GB706	A	19910502		
CA 2337748	A1	19911114	CA 2059263	A	19910502	200132	E
			CA 2337748	A	19910502		
CZ 288499	B6	20010613	CS 19911251	A	19910430	200138	E
CN 1326743	A	20011219	CN 1994109429	A	19910430	200226	E
			CN 1999126580	A	19910430		
US 20030004175	A1	20030102	US 1992835964	A	19920220	200305	E
			US 2001771701	A	20010130		
SK 283430	B6	20030701	CS 19911251	A	19910430	200352	E
PH 1199142376	B1	20010927	PH 199142376	A	19910430	200357	E
FI 111722	B1	20030915	WO 1991GB706	A	19910502	200362	E
			FI 19916165	A	19911230		
FI 111723	B1	20030915	WO 1991GB706	A	19910502	200362	E
			FI 19916165	A	19911230		
			FI 19954183	A	19950906		
CN 1036196	C	19971022	CN 1991102778	A	19910430	200455	E
CN 1056145	C	20000906	CN 1994109429	A	19940815	200471	E
TW 222448	B1	20041021	TW 1991106761	A	19910719	200532	E
US 20050250950	A1	20051110	US 1992835964	A	19920220	200574	E
			US 1995460854	A	19950605		
			US 2005182835	A	20050718		
CN 1154500	C	20040623	CN 1999126580	A	19940815	200612	E

Priority Applications (no., kind, date): WO 1991GB706 A 19910502; GB 19909861 A 19930502; GB 19909861 A 19900502

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
WO 1991017159	A	EN			
National Designated States,Original: AU BG CA FI HU JP KR LK NO PL RO SU US					
Regional Designated States,Original: AT BE CH DE DK ES FR GB GR IT LU NL OA SE					
ZA 199103293	A	EN	34		
NO 199200018	A	NO			PCT Application WO 1991GB706
JP 5501117	W	JA	14		PCT Application WO 1991GB706 Based on OPI patent WO 1991017159
HU 64335	T	HU			PCT Application WO 1991GB706 Based on OPI patent WO 1991017159
NZ 238017	A	EN			
AU 651345	B	EN			Previously issued patent AU 9177719 Based on OPI patent WO 1991017159
EP 625150	A1	EN			PCT Application WO 1991GB706 Based on OPI patent WO 1991017159
Regional Designated States,Original: AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
FI 199504183	A	FI			PCT Application WO 1991GB706 Division of application FI 19916165
IL 98025	A	EN			
NO 180377	B	NO			PCT Application WO 1991GB706 Previously issued patent NO 9200018
CN 1108655	A	ZH			Division of application CN 1991102778
RO 112616	B1	RO			PCT Application WO 1991GB706 Based on OPI patent WO 1991017159
SG 46383	A1	EN			
RU 2099338	C1	RU	18	0	PCT Application WO 1991GB706
KR 199607532	B1	KO			PCT Application WO 1991GB706
JP 11080153	A	JA	15		Division of application JP 1991508513
JP 2927546	B2	JA	16		PCT Application WO 1991GB706 Previously issued patent JP 05501117

				Based on OPI patent WO 1991017159
JP 2000128787	A	JA	15	Division of application JP 1998162127
TW 366346	A	ZH		
JP 3062475	B2	JA	15	Division of application JP 1991508513
				Previously issued patent JP 11080153
EP 1062950	A2	EN		Division of application EP 1991920963
				Division of patent EP 625150
Regional Designated States,Original: AT BE CH DE DK ES FR GB GR IT LI LU NL SE				
US 6180639	B1	EN		PCT Application WO 1991GB706
				Based on OPI patent WO 1991017159
CA 2059263	C	EN		PCT Application WO 1991GB706
				Based on OPI patent WO 1991017159
CA 2337748	A1	EN		Division of application CA 2059263
CZ 288499	B6	CS		Previously issued patent CS 9101251
CN 1326743	A	ZH		Division of application CN 1994109429
US 20030004175	A1	EN		Continuation of application US 1992835964
				Continuation of patent US 6180639
SK 283430	B6	SK		Previously issued patent CS 9101251
PH 1199142376	B1	EN		
FI 111722	B1	FI		PCT Application WO 1991GB706
				Previously issued patent FI 9106165
FI 111723	B1	FI		PCT Application WO 1991GB706
				Division of application FI 19916165
				Previously issued patent FI 9504183
TW 222448	B1	ZH		
US 20050250950	A1	EN		Continuation of application US 1992835964
				Continuation of application US 1995460854
				Continuation of patent US 6180639

18/3,DE/48 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

0005431848
WPI ACC NO: 1991-031035/
XRAM Acc No: C1991-013258
New carbocyclic ***nucleoside***(s) to treat viral diseases esp. Herpes - are amino dihydroxy-fluorocyclopentyltriazolo pyrimidinone
Patent Assignee: GLAXO GROUP LTD (GLAX)
Inventor: BAXTER A D; BIGGADIKE K; BORTHWICK A D; CHI L M; KIRK B E; MO C L ; ***STORER R***; WEIR N G
9 patents, 21 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 410660	A	19910130	EP 1990308022	A	19900723	199105 B
AU 199059722	A	19910124				199111 E
PT 94797	A	19910320				199114 E
CA 2021784	A	19910125				199116 E
JP 3118384	A	19910520	JP 1990193206	A	19900723	199126 E
ZA 199005807	A	19910626	ZA 19905807	A	19900724	199131 E

US 5100896	A	19920331	US 1990556262	A	19900723	199216	E
NZ 234628	A	19930225	NZ 234628	A	19900724	199312	E
PH 27286	A	19930504	PH 199040890	A	19900724	199721	E

Priority Applications (no., kind, date): GB 198916854 A 19890724; GB 199011053 A 19900517

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 410660	A	EN			
Regional Designated States,Original: AT BE CH DE ES FR GB GR IT LI LU NL SE					
CA 2021784	A	EN			
ZA 199005807	A	EN			
US 5100896	A	EN	12		
NZ 234628	A	EN			
PH 27286	A	EN			

18/3,DE/49 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0005425362
WPI ACC NO: 1991-024159/
XRAM Acc No: C1991-010363
2-Amino-1,9-dihydro-9-substd.-6-H-purine-6-one deriv. ***prepn***. - by hydrolysing new
3-(2-amino-6-(ar)-alkoxyamino-9-purinyl)-5-hydroxymethyl-1,2-cyclopentane :diol derivs.
Patent Assignee: GLAXO GROUP LTD (GLAX)
Inventor: MO C L; ***STORER R***; TURNBULL J P
5 patents, 16 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update
EP 409595	A	19910123	EP 1990307855	A	19900718	199104 B
CA 2021290	A	19910120				199116 E
JP 3135981	A	19910610	JP 1990188172	A	19900718	199129 E
US 5110926	A	19920505	US 1990553631	A	19900717	199221 E
EP 409595	A3	19920701	EP 1990307855	A	19900718	199333 E

Priority Applications (no., kind, date): GB 198916480 A 19890719
Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 409595	A	EN			
Regional Designated States,Original: AT BE CH DE ES FR GB GR IT LI LU NL SE					
CA 2021290	A	EN			
US 5110926	A	EN	7		
EP 409595	A3	EN			

18/3,DE/50 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2006 The Thomson Corporation. All rts. reserv.

0004838514
WPI ACC NO: 1989-214653/198930
Related WPI Acc No: 1990-281498; 1993-027002; 1996-496424; 1997-296870; 1998-347424; 1999-417985; 1999-571298; 2000-430251; 2003-478922
XRAM Acc No: C1989-095434
New triazolopyrimidine cpds. - useful as anticancer agents are 4-(5-amino-3H-1,2,3-triazolo (4,5-d)pyrimidinyl)-2-cyclo pentenyl carbinol derivs.

Patent Assignee: MINNESOTA UNIVERSITY (MINU); UNIV MINNESOTA (MINU)
Inventor: HUA M; MEI H J; MYERS P L; ***STORER R***; VINCE R
47 patents, 28 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
EP 325460	A	19890726	EP 1989300510	A	19890119	198930	B
DE 3901502	A	19890727	DE 3901502	A	19890119	198931	E
HU 48887	T	19890728				198935	E
AU 198928671	A	19890720				198936	E
FR 2626002	A	19890721	FR 1989592	A	19890119	198936	E
NL 198900122	A	19890816	NL 1989122	A	19890119	198936	E
LU 87437	A	19890830				198938	E
NO 198900253	A	19890814				198938	E
SE 198900192	A	19890721				198938	E
DK 198900234	A	19890721				198939	E
GB 2217320	A	19891025	GB 198821011	A	19880907	198943	NCE
			GB 1988210117	A	19880907		
FI 198900286	A	19890721				198945	E
PT 89482	A	19891004				198945	E
ES 2010091	A	19891016	ES 1989184	A	19890119	199003	E
JP 1308282	A	19891212	JP 19898745	A	19890119	199004	E
ZA 198900440	A	19900131	ZA 1989440	A	19890119	199009	E
US 4916224	A	19900410	US 1988146252	A	19880120	199020	E
			US 1988278652	A	19881205		
US 4931559	A	19900605	US 1988146252	A	19880120	199026	E
			US 1988278652	A	19881205		
CN 1036015	A	19891004				199031	E
JP 2196788	A	19900803	JP 19898744	A	19890119	199037	E
GB 2243609	A	19911106	GB 199110987	A	19910521	199145	E
CH 679152	A	19911231				199204	E
GB 2243609	B	19920311	GB 199110987	A	19890119	199211	E
GB 2217320	B	19920408	GB 19891187	A	19890119	199215	E
IT 1229531	B	19910904	IT 198947546	A	19890119	199233	E
AU 199210180	A	19920312	AU 198928671	A	19890124	199237	NCE
			AU 199210180	A	19920113		
BE 1003815	A4	19920623	BE 198961	A	19890119	199240	E
EP 325460	B1	19921021	EP 1989300510	A	19890119	199243	E
DE 68903226	E	19921126	DE 68903226	A	19890119	199249	E
			EP 1989300510	A	19890119		
AU 637015	B	19930513	AU 198928671	A	19890124	199326	NCE
			AU 199210180	A	19920113		
AT 198900106	A	19931115	AT 1989106	A	19890119	199348	E
AT 397801	B	19940515	AT 1989106	A	19890119	199422	E
ES 2052897	T3	19940716	EP 1989300510	A	19890119	199430	E
FI 93546	B	19950113	FI 1989286	A	19890119	199508	E
IL 88999	A	19941229	IL 88999	A	19890119	199513	E
IE 62275	B	19950125	IE 1989153	A	19890119	199517	E
RU 2067097	C1	19960927	SU 4613327	A	19890119	199720	E
SE 505213	C2	19970714	SE 1989192	A	19890119	199734	E
JP 2738946	B2	19980408	JP 19898745	A	19890119	199819	E
CA 1339803	C	19980407	CA 588611	A	19890119	199825	E
CA 1339896	C	19980602	CA 588614	A	19890119	199833	E
JP 2793825	B2	19980903	JP 19898744	A	19890119	199840	E
KR 127137	B1	19971229	KR 1989551	A	19890119	199952	E
RU 2114846	C1	19980710	RU 19924364	A	19890119	200001	E
PH 30732	A	19971017	PH 198938069	A	19890119	200157	E
DE 3901502	C2	20020613	DE 3901502	A	19890119	200240	E
DK 175131	B	20040614	DK 1989234	A	19890119	200440	E

Priority Applications (no., kind, date): AU 199210180 A 19920113; US 1988287321 A 19881223; GB 198821011 A 19880907; US 1988146252 A 19880120; US 1988278652 A 19881205

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
EP 325460	A	EN	13	0	

Regional Designated States,Original: BE CH DE ES FR GB GR IT LI LU NL SE

LU 87437	A	FR			
SE 198900192	A	SV			
ZA 198900440	A	EN			
CH 679152	A	DE			
GB 2243609	B	EN	0	4	
GB 2217320	B	EN	0		
AU 199210180	A	EN			Division of application AU 198928671
BE 1003815	A4	NL	60	0	
EP 325460	B1	EN	18	0	

Regional Designated States,Original: AT BE CH DE ES FR GB GR IT LI LU NL SE

DE 68903226	E	DE			Application EP 1989300510 Based on OPI patent EP 325460
AU 637015	B	EN			Division of application AU 198928671 Previously issued patent AU 9210180
AT 397801	B	DE			Previously issued patent AT 8900106
ES 2052897	T3	ES			Application EP 1989300510 Based on OPI patent EP 325460
FI 93546	B	FI			Previously issued patent FI 8900286
IL 88999	A	EN			
IE 62275	B	EN			
RU 2067097	C1	RU	17	0	
SE 505213	C2	SV			
JP 2738946	B2	JA	9	0	Previously issued patent JP 01308282
CA 1339803	C	EN			
CA 1339896	C	EN			
JP 2793825	B2	JA	20		Previously issued patent JP 02196788
PH 30732	A	EN			
DK 175131	B	DA			Previously issued patent DK 8900234

Germany
Publication No. DE 3901502 A (Update 198931 E)
Publication Date: 19890727
Didesoxydehydrocarbocyclische Nucleoside
Assignee: Regents of the University of Minnesota, Minneapolis, Minn., US
Inventor: Vince, Robert, St. Paul, Minn., US
Hua, Mei, Beijing, CN
Myers, Peter Leslie, Sydenham, Oxfordshire, GB
Storer, Richard, Pinner, Middlesex, GB
Agent: Zumstein sen., F., Dr.; Klingseisen, F., Dipl.-Ing., Pat.-Anwaelte, 8000 Muenchen
Language: DE
Application: DE 3901502 A 19890119 (Local application)
Priority: US 1988146252 A 19880120
US 1988278652 A 19881205
Original IPC: C07D-473/00 A61K-31/52 C07D-239/46 C07D-239/48 C07D-239/50 C07D-473/16 C07D-473/18 C07D-473/40 C07D-498/14
Current IPC: C07D-473/00(A) A61K-31/52 C07D-239/46 C07D-239/48 C07D-239/50 C07D-473/16 C07D-473/18 C07D-473/40 C07D-498/14
Claim:
* 1. Verbindung der Formel I
[CHE]worinX ist Wasserstoff, NRR1, SR, OR
oder Halogen; Z ist Wasserstoff, OR2 oder NRR1; wobei R, R1 und R2 gleich oder verschieden sein konnen und ausgewahlt sind aus Wasserstoff, C1-4-Alkyl und Aryl;und pharmazeutisch annehmbare Derivate davon.

Publication No. DE 3901502 C2 (Update 200240 E)
Publication Date: 20020613
Didesoxydehydrocarbocyclische Nucleoside, diese enthaltende pharmazeutische Formulierungen und Pyrimidinylamino-cyclopentenylcarbinol-Derivate
Assignee: Regents of the University of Minnesota, Minneapolis, Minn., US (MINU)
Inventor: Vince, Robert, St. Paul, Minn., US
Hua, Mei, Beijing, CN
Myers, Peter Leslie, Sydenham, Oxfordshire, GB
Storer, Richard, Pinner, Middlesex, GB
Agent: Zumstein Klingseisen, 80331 Munchen
Language: DE
Application: DE 3901502 A 19890119 (Local application)
Priority: US 1988146252 A 19880120
GB 198821011 A 19880907
US 1988278652 A 19881205
Original IPC: C07D-473/00(A) A61K-31/52(B) C07D-239/46(B) C07D-239/48(B) C07D-239/50(B) C07D-473/16(B) C07D-473/18(B) C07D-473/40(B)
Current IPC: C07D-473/00(A) A61K-31/52(B) C07D-239/46(B) C07D-239/48(B) C07D-239/50(B) C07D-473/16(B) C07D-473/18(B) C07D-473/40(B)
Claim: 1. Didesoxydehydrocarbocyclische Nucleoside der Formel I:
*
[CHE 0056.0001]worinX Wasserstoff, NRR1, SR, OR oder Halogen ist; undZ Wasserstoff, OR2 oder NRR1 ist;wobei R, R1 und R2 gleich oder verschieden sein konnen und ausgewahlt sind aus Wasserstoff, C1-4-Alkyl, Phenyl, Tolyl, Xylyl, Anisyl und Phen-(C1-4)-alkyl;und deren pharmazeutisch annehmbare Salze, Ester oder Salze dieser Ester.

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Assignee: UNIV MINNESOTA (MINU)
Inventor: VINCE R
HUA M
Language: DE
Application: DE 68903226 A 19890119 (Local application)
EP 1989300510 A 19890119 (Application)
Priority: US 1988146252 A 19880120
US 1988278652 A 19881205
Related Publication: EP 325460 A (Based on OPI patent)
Original IPC: C07D-487/04(A) A61K-31/505(B)
Current IPC: C07D-487/04(A) A61K-31/505(B)

18/3,DE/51 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

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WPI ACC NO: 1986-139364/
XRAM Acc No: C1986-059542
New ***ribofuranosylmethylimidazo*** (1,5-b) pyridazine(s) - exhibit antiviral activity against RNA viruses
Patent Assignee: GLAXO GROUP LTD (GLAX)
Inventor: HOLMAN S; KNIGHT D J; SCOOPES D I C; SCOPES D I C; ***STORER R***
20 patents, 18 countries
Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Update	
GB 2167419	A	19860529	GB 198429694	A	19841123	198622	B
			GB 198528766	A	19851122		
DE 3541358	A	19860528	DE 3541358	A	19851122	198623	E
BE 903699	A	19860522	BE 29694	A	19851122	198624	E
FR 2573764	A	19860530	FR 198517238	A	19851121	198628	E
AU 198550299	A	19860529				198629	E

NL 198503225	A	19860616	NL 19853225	A	19851122	198629	E
SE 198505534	A	19860524				198629	E
NO 198504692	A	19860616				198631	E
DK 198505401	A	19860524				198635	E
LU 86178	A	19860604				198635	E
JP 61165385	A	19860726	JP 1985261614	A	19851122	198636	E
FI 198504619	A	19860524				198640	E
PT 81540	A	19861128				198703	E
ES 198704947	A	19870701	ES 1986556894	A	19860716	198730	E
ZA 198508964	A	19870522	ZA 19858964	A	19851122	198734	E
US 4690917	A	19870901	US 1985800667	A	19851122	198737	E
ES 198707254	A	19871001				198744	E
CN 1985109195	A	19861105				198747	E
GB 2167419	B	19880323	GB 198429694	A	19841123	198812	E
			GB 198528766	A	19851122		
IT 1181736	B	19870930				199038	E

Priority Applications (number, kind, date): GB 198429694 A 19841123; GB 198528766 A 19851122

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
BE 903699	A	FR			
SE 198505534	A	SV			
LU 86178	A	FR			
ZA 198508964	A	EN			

Germany
Publication Number DE 3541358 A (Update 198623 E)
Publication Date: 19860528
Imidazopyridazin-Derivate
Assignee: Glaxo Group Ltd., London, GB
Inventor: Knight, David John, Chalfont St. Peter, Buckinghamshire, GB
Scopes, David Ian Carter, Furneux Pelham, Hertfordshire, GB
Storer, Richard, Pinner, Middlesex, GB
Holman, Stuart, Northolt, Middlesex, GB
Agent: Assmann, E., Dipl.-Chem. Dr.rer.nat.; Klingseisen, F., Dipl.-Ing.; Zumstein, F., Dipl.-Chem. Dr.rer. nat., Patentanwalt, 8000 Muenchen
Language: DE
Application: DE 3541358 A 19851122 (Local application)
Priority: GB 198429694 A 19841123
GB 198528766 A 19851122
Original IPC: C07D-487/04 A61K-31/50
Current IPC: C07D-487/04(A) A61K-31/50
Claim:
* 1. Verbindungen der Formel(01.Formel) worin R1, R3 und R4 jeweils unabhaengig ein Wasserstoffatom oder eine Schutzgruppe bedeuten; R2 ein Halogenatom oder eine Gruppe der Formel -NRaRb bedeutet (worin Ra und Rb, die gleich oder verschieden sein koennen, jeweils ein Wasserstoffatom oder eine Alkylgruppe bedeuten; oder Ra und Rb koennen verknuepft sein, um zusammen mit dem Stickstoffatom, an das sie gebunden sind, einen heterocyclischen Ring zu bilden, der gegebenenfalls ein weiteres Heteroatom enthaelt); und ihre physiologischen Aequivalente sowie ihre Salze mit Saeuren.

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